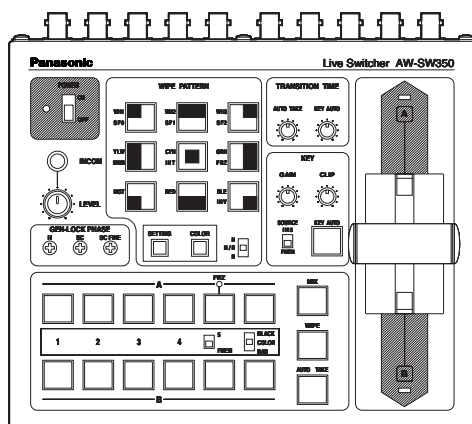


Service Manual

- Sec. 1** Service Information
- Sec. 2** Electrical Adjustments
- Sec. 3** Schematic Diagrams
- Sec. 4** Circuit Board Diagrams
- Sec. 5** Exploded Views & Parts List


Live Switcher AW-SW350P/E



SPECIFICATIONS/STANDARD ACCESSORIES

SPECIFICATIONS

Power supply:	12 V DC (+10.8 ~ 16.0V)
Power consumption:	16 W

 indicates safety information.

Video Inputs

Composite video signal:	VBS: 1.0 V[p-p]/75 Ω × 5 (BNC connector, automatic termination)
Y/C:	Y: 1.0 V[p-p]/75 Ω
	C: 0.286 V[p-p]/75 Ω × 5 (S connector)

Video Outputs

Composite video output:	VBS: 1.0 V[p-p]/75 Ω × 2 (BNC connector)
Y/C:	Y: 1.0 V[p-p]/75 Ω × 1
	C: 0.286 V[p-p]/75 Ω × 1 (S connector)
Preview output:	VBS: 1.0 V[p-p]/75 Ω × 1 (BNC connector)
Black burst signal:	BBS: Sync: 0.286 V[p-p], C: 0.286 V[p-p] burst level/75 Ω × 1 (BNC connector)
Signal loopthrough output:	1 each (BNC connector)

Functions and Performance

Frame synchronizer:	10 bit quantization, 13.5MHz sampling Mounted to each channel of VIDEO IN 1 to 5.
Wipe patterns:	9 patterns
Wipe directions:	3 directions (normal, reverse, normal/reverse)
Mix:	Cross fader
Auto take:	Wipe, Mix (time adjustable)
Key synthesis:	Self Key, Linear Key
Intercom:	1 to 5 (6-pin connector, 3/4 wire selectable), Intercom jack (M6 jack)
Tally control:	1 to 5 (open collector output)
Color bar:	Internal (SMPTE, Black/Color selectable)
White and black signals:	Internal
Frequency response:	FS ON: 6.0MHz +1 dB, -3dB FS OFF: 10.0MHz +1 dB, -3dB
S/N:	FS ON: More than 58 dB FS OFF: More than 65 dB
DG/DP:	FS ON: ±2°, ±2% FS OFF: ±1.5°, ±1.5%

Operating temperature range:	32°F to 104°F (0°C to 40°C)
Humidity:	30% to 90%
Dimensions (W × H × D):	8-1/4" × 3-7/16" × 6-15/16" (210 × 86 × 176 mm)
Weight:	Approx. 4.9 lb (2.2 kg)
Finish:	AV ivory painting (Munsell 7.9Y6.8/0.8 or close to it)

Weight and dimensions indicated are approximate.
Specifications are subject to change without notice.


STANDARD ACCESSORIES

Tally/intercom connector	5 pcs.
Rack mounting parts	2 pcs.
Connecting plate	1 pc.
Mounting screws	1 set
Image transfer program setup CD	1 pc.

SPECIFICATIONS/STANDARD ACCESSORIES

SPECIFICATIONS

Power supply:	12 V DC (+10.8 ~ 16.0V)
Power consumption:	16 W

 indicates safety information.

Video Inputs

Composite video signal:	VBS: 1.0 V[p-p]/75 Ω × 5 (BNC connector, automatic termination)
Y/C:	Y: 1.0 V[p-p]/75 Ω
	C: 0.3 V[p-p]/75 Ω × 5 (S connector)

Video Outputs

Composite video output:	VBS: 1.0 V[p-p]/75 Ω × 2 (BNC connector)
Y/C:	Y: 1.0 V[p-p]/75 Ω × 1
	C: 0.3 V[p-p]/75 Ω × 1 (S connector)
Preview output:	VBS: 1.0 V[p-p]/75 Ω × 1 (BNC connector)
Black burst signal:	BBS: Sync: 0.3 V[p-p], C: 0.3 V[p-p] burst level/75 Ω × 1 (BNC connector)
Signal loopthrough output:	1 each (BNC connector)

Functions and Performance

Frame synchronizer:	10 bit quantization, 13.5MHz sampling Mounted to each channel of VIDEO IN 1 to 5.
Wipe patterns:	9 patterns
Wipe directions:	3 directions (normal, reverse, normal/reverse)
Mix:	Cross fader
Auto take:	Wipe, Mix (time adjustable)
Key synthesis:	Self Key, Linear Key
Intercom:	1 to 5 (6-pin connector, 3/4 wire selectable), Intercom jack (M6 jack)
Tally control:	1 to 5 (open collector output)
Colour bar:	Internal (EBU, Black/Colour selectable)
White and black signals:	Internal
Frequency response:	FS ON: 6.0MHz +1 dB, -3dB FS OFF: 10.0MHz +1 dB, -3dB
S/N:	FS ON: More than 58 dB FS OFF: More than 65 dB
DG/DP:	FS ON: ±2°, ±2% FS OFF: ±1.5°, ±1.5%

Operating temperature range:	0°C to 40°C
Humidity:	30% to 90%
Dimensions (W × H × D):	210 × 86 × 176 mm
Weight:	Approx. 2.2 kg
Finish:	AV ivory painting (Munsell 7.9Y6.8/0.8 or close to it)

Weight and dimensions indicated are approximate.
Specifications are subject to change without notice.

STANDARD ACCESSORIES

Tally/intercom connector	5 pcs.
Rack mounting parts	2 pcs.
Connecting plate	1 pc.
Mounting screws	1 set
Image transfer programme setup CD	1 pc.

SAFETY PRECAUTIONS

GENERAL GUIDELINES

1. When servicing, observe the original lead dress. If a short circuit is found, replace all parts, which have been over-heated or damaged by the short circuit.
2. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed.
3. After servicing, make the following leakage current checks to prevent the customer from being exposed to shock hazards.

LEAKAGE CURRENT COLD CHECK

1. Unplug the AC cord and connect a jumper between the two prongs on the plug.
2. Measure the resistance value, with an ohm meter, between the jumpered AC plug and each exposed metallic cabinet part on the equipment such as screwheads, connectors, control shafts, etc. The resistance value must be more than $5M\Omega$.

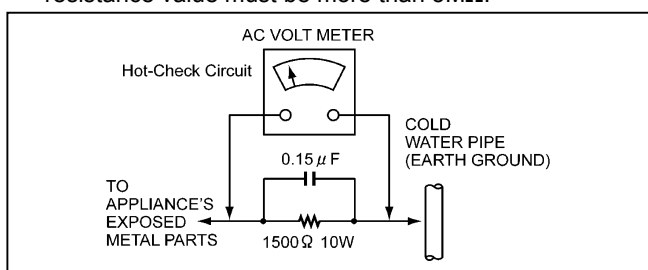


Figure1

LEAKAGE CURRENT HOT CHECK (See Figure 1)

1. Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.
2. Connect a $1.5K\Omega$, 10W resistor, in parallel with a $0.15\mu F$ capacitor, between each exposed metallic part on the set and a good earth ground such as a water pipe, as shown in Figure1.
3. Use an AC voltmeter, with 1000 ohms/volt or more sensitivity, to measure the potential across the resistor.
4. Check each exposed metallic part, and measure the voltage at each point.
5. Reverse the AC plug in the AC outlet repeat each of the above measurements.
6. The potential at any point should not exceed 0.15 volts RMS. A leakage current tester (Simpson Model 229 equivalent) may be used to make the hot checks, leakage current must not exceed 0.1 milliamp. In case a measurement is outside of the limits specified, there is a possibility of a shock hazard, and the equipment should be repaired and rechecked before it is returned to the customer.

ABOUT LEAD FREE SOLDER (PbF)

Distinction of PbF PCB:

PCBs (manufactured) using lead free solder will have a PbF indication on the PCB.

Caution:

1. Pb free solder has a higher melting point than standard solder; Typically the melting point is $50-70^{\circ}F$ ($30-40^{\circ}C$) higher. Please use a high temperature soldering iron. In case of the soldering iron with temperature control, please set it to $700\pm 20^{\circ}F$ ($370\pm 10^{\circ}C$).
2. Pb free solder will tend to splash when heated too high (about $1100^{\circ}F/600^{\circ}C$).

ELECTROSTATICALLY SENSITIVE (ES) DEVICES

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground.

Alternatively, obtain and wear a commercially available discharging wrist trap device, which should be removed for potential shock reasons prior to applying power to the unit under test.

2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static solder removal device classified as "anti-static" can generate electrical charges sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it.
(most replacement ES devices are package with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.
CAUTION: Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.
8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device).

X-RADIATION

WARNING

1. The potential source of X-radiation in EVF sets is the High Voltage section and the picture tube.
2. When using a picture tube test jig for service, ensure that jig is capable of handling 10kV without causing X-Radiation.

Note: It is important to use an accurate periodically calibrated high voltage meter.

3. Measure the High Voltage. The meter (electric type) reading should indicate $2.5kV$, $\pm 0.15kV$. If the meter indication is out of tolerance, immediate service and correction is required to prevent the possibility of premature component failure. To prevent an X-Radiation possibility, it is essential to use the specified picture tube.

- Use a rain cover when the unit is to be used outdoors in rainy weather.
- Only L-size DVCPRO cassette tapes can be used with this camera recorder.
Do not use standard size DV tapes or tapes of any other size.



CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER SERVICEABLE PARTS INSIDE.
REFER TO SERVICING TO QUALIFIED SERVICE PERSONNEL.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (service) instructions in the literature accompanying the appliance.

WARNING:

TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.

CAUTION:

TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD AND ANNOYING INTERFERENCE, USE THE RECOMMENDED ACCESSORIES ONLY.

CAUTION:

TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD, REFER CHANGE OF SWITCH SETTING INSIDE THE UNIT TO QUALIFIED SERVICE PERSONNEL.

FCC Note:

This device complies with Part 15 of the FCC Rules. To assure continued compliance follow the attached installation instructions and do not make any unauthorized modifications.

This equipment has been tested and found to comply with the limits for a class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Replace battery with part No. CR2032 only.

Use of another battery may present a risk of fire or explosion.

Caution—Battery may explode if mistreated.


Do not recharge, disassemble or dispose of in fire.



ATTENTION:

The product you have purchased is powered by a nickel cadmium battery which is recyclable. At the end of its useful life, under various state and local laws, it is illegal to dispose of this battery into your municipal waste stream.

Please call 1-800-8-BATTERY for information on how to recycle this battery.

 indicates safety information.

For your safety

■ DO NOT REMOVE PANEL COVER BY UN-SCREWING

To reduce the risk of the electric shock, do not remove cover. No user serviceable parts inside. Refer servicing to qualified service personnel.

WARNING:

TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.

CAUTION:

TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD AND ANNOYING INTERFERENCE, USE THE RECOMMENDED ACCESSORIES ONLY.

Lithium Battery

Warning

The lithium battery in this equipment must only be replaced by qualified personnel. When necessary, contact your local Panasonic supplier.

"The lithium battery is a critical component (type number CR2032 manufactured by Panasonic).

It must never be subjected to excessive heat or discharge. It must therefore only be fitted in equipment designed specifically for its use.

Replacement batteries must be of the same type and manufacturer. They must be fitted in the same manner and location as the original battery, with the correct polarity connections observed.

Do not attempt to re-charge the old battery or re-use it for any other purpose. It should be disposed of in waste products destined for burial rather than incineration."

CAUTION

Danger of explosion if battery is incorrectly replaced.

Replace only with the same or equivalent type recommended by the equipment manufacturer. Discard used batteries according to manufacturer's instructions.

VARNING

Explosionsfara vid felaktigt batteribyte.

Använd samma batterityp eller en ekvivalent typ som rekommenderas av apparattillverkaren. Kasserat använt batteri enligt fabrikantens instruktion.

ADVARSEL!

Eksplussionsfare ved fejlagtig håndtering.

Udskiftning må kun ske med batteri af samme fabrikat og type. Levér det brugte batteri tilbage til leverandøren.

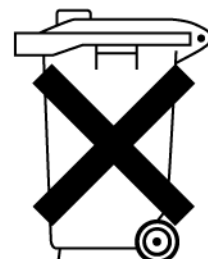
VAROITUS

Paristo voi räjähtää, jos se on virheellisesti asennettu.

Vaihda paristo ainoastaan laitevalmistajan suosittelemaan tyyppiin. Hävitä käytetty paristo valmistajan ohjeiden mukaisesti.

Attention/Attentie

- This apparatus contains a lithium battery for memory back-up.
- For the removal of the battery at the moment of the disposal at the end of the service life please consult your dealer.
- Do not throw away the battery. Instead, hand it in as hazardous waste.
- Dit apparaat bevat een lithiumbatterij voor memory back-up.
- Raadpleeg uw leverancier over de verwijdering van de batterij op het moment dat u het apparaat bij einde levensduur afdankt.
- Gooi de batterij niet weg, maar lever hem in als KCA.



Panasonic

SECTION 1

SERVICE INFORMATION

CONTENTS

- 1. SOFTWARE VERSION UPGRADE PROCEDURE INF-1
 - 1-1 Version upgrade Methode by Personal Computer INF-1
 - 1-2 Version upgrade Methode of using ROM changer board INF-2

SOFTWARE VERSION UPGRADE PROCEDURE

The AW-SW350 uses a built-in flash memory. There are 2 ways for the software version upgrade.

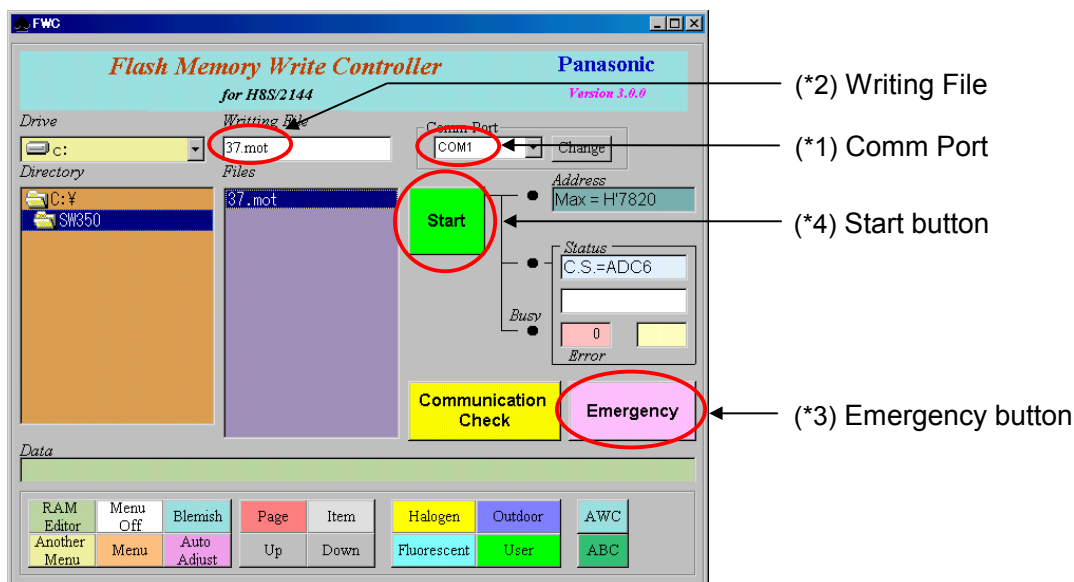
1. Version upgrade Method by Personal Computer

A. Preparation

ITEM	REMARK
D-sub 50pin-9pin Cable	AW-CA50T9
Version Upgrade Software	FWC3
Version Upgrade Data	mot format file
Personal Computer	WINDOWS 95® or 98®

B. Version Upgrade Procedure

1. Remove the panel for service which is in the base.
2. Connect the D-sub 50pin –9pin Cable between 50P connector and Personal Computer.
3. Boot up the FWC3.
4. Select the “Comm port” to correspond. (*1)
5. Set the “Writing File “ to correct “mot format file”. (*2)



6. Turn on the power while press the “SETTING” button and the “COLOR”.
(Continue to press the “SETTING” button and the “COLOR” button until the lamps at the “Wipe Pattern” button light as follows.



7. Click the “Emergency” button on the version up software. (*3)
8. Click the “Start” button to start the programming. (*4)

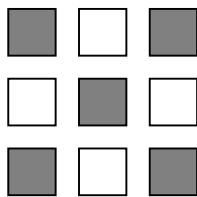
2. Version upgrade Method of using ROM changer board

A. Preparation

ITEM	REMARK
ROM changer board	VFK1667
Version Upgrade Data	mot format file

B. Version Upgrade Procedure

1. Install the new version software (ROM) on the ROM changer board (VFK1667).
2. Make sure that the power is turned OFF.
3. Remove the bottom plate, and connect the ROM changer board to the 50P connector.
4. Set the "Baud Rate" switch on the ROM changer board to the center position.
Since write protection is not activated, write operation can be started regardless of WRITE/PROTECT selection.
5. Press the START button twice. Then the green LED on the board turns off and the red LED will blink at random. Erase the program and then write new program. (*1)



□ : Light

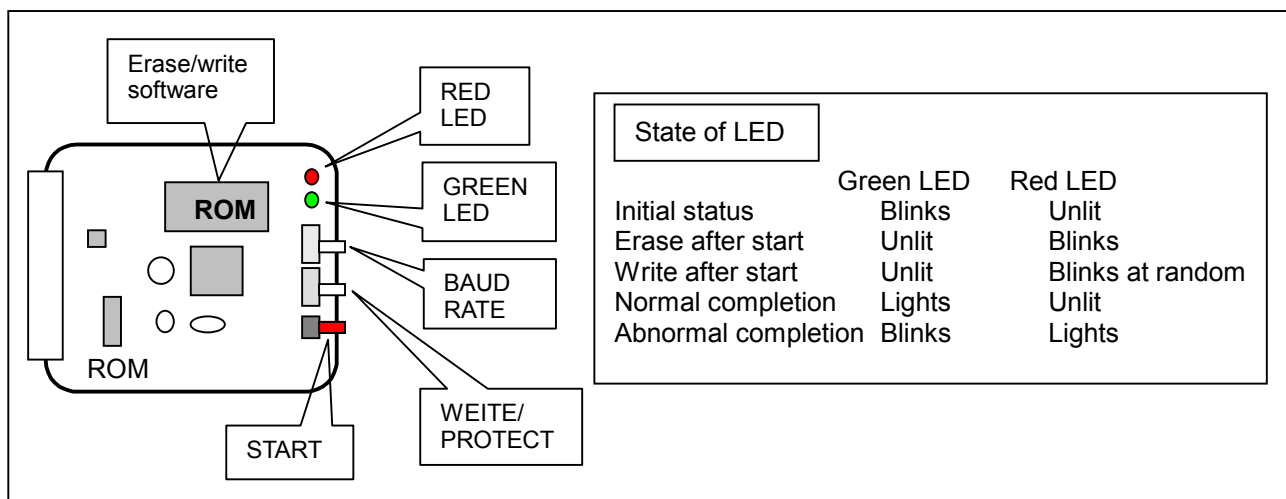
■ : Unlit

6. Confirmation of completion:
 - (a) Green LED lights : completed successful
 - (b) Red LED, green LED blinks : error

After completed successfully, the Main unit goes into the sleep mode. If will start after power is turned off and then on again. Turn off power and remove the board. If it was error, press the START button to re-write. (*2)

(*1) If the operation ends with an error after writing, it is impossible to re-write once power of the Main unit is turned off. Try writing again by pressing START button.

(*2) In case of an error (red LED won't blink) after START, turn power off, set the BAUD RATE switch to either position and retry writing. Normally, used at "0" position but another position may be effective.



SECTION 2

ELECTRICAL ADJUSTMENTS

CONTENTS

1. Composite Level Adjustment.....	ELE-1
2. Y/C OUT Level Adjustment.....	ELE-1
3. KEY Level Adjustment	ELE-2
4. Color Bar Level Adjustment.....	ELE-2
5. G/L SCH Adjustment.....	ELE-3
6. INT Frequency Adjustment	ELE-3

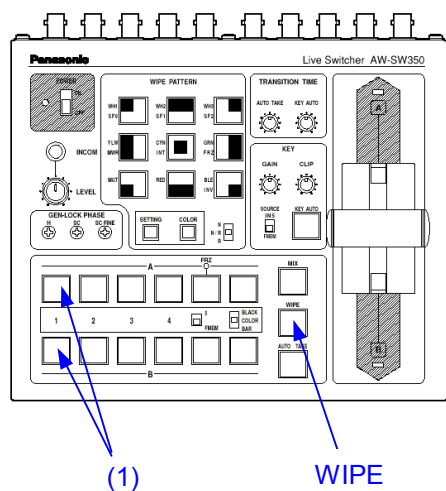
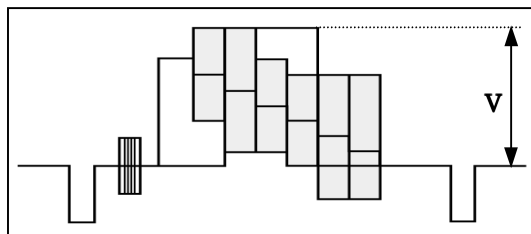
Adjustment

Unless otherwise specified all switches, connector, buttons are located on the rear panel or the top panel.

1. Composite Level Adjustment

BOARD	MAIN
TP	PGM OUT1
ADJ.	VR5(BUS A),VR6(BUS B)
SIGNAL	Color Bar Signal With Y Reference (White 100%)
M. EQ	Oscilloscope
SPEC.	100IRE±2IRE

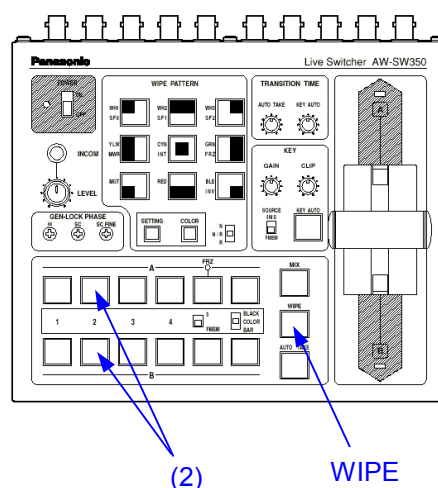
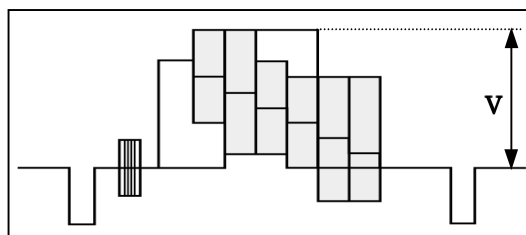
1. Set the SET UP switch SW1 to the lower side (FS OFF) and SW2 to the upper side (BB OUT).
2. Supply the BB signal from the BB output connector of AW-SW350 to an EXT input of signal generator so that the signal generator is synchronized with the AW-SW350.
3. Supply a color bar signal to the VIDEO IN1 connector from signal the signal generator.
4. Press the (1) of A bus and B bus buttons, and WIPE button as shown in the following figure.
5. Select the fader lever to A-Bus side and adjust VR5 so that the Composite Level is within the specification.
6. Move the fader lever to the B-Bus side and adjust VR6 so that the Composite Level is within the specification.
7. Repeat the steps 5 and 6 so that the difference between A-bus output and B-Bus output is minimized.



2. Y/C OUT Level Adjustment

BOARD	MAIN
TP	PGM OUT1
ADJ.	VR8(BUS AYC),VR9(BUS BYC)
SIGNAL	Color Bar Signal With Y Reference (White 100%)
M. EQ	Oscilloscope
SPEC.	100IRE±2IRE

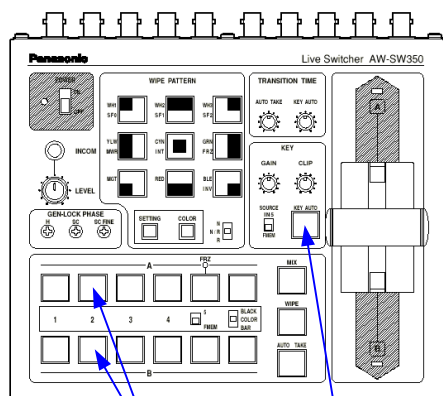
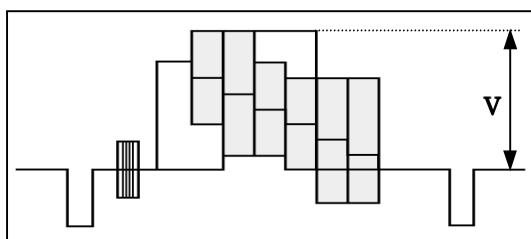
1. Set the SET UP switch SW1 to the lower side (FS OFF) and SW2 to the upper side (BB OUT).
2. Supply the BB signal from the BB output connector of AW-SW350 to an EXT input of signal generator so that the signal generator is synchronized with the AW-SW350.
3. Supply a color bar signal to the Y/C IN2 connector from a signal generator.
4. Press the (2) of A bus and B bus buttons, and WIPE button as shown in the following figure.
5. Move the fader lever to A-Bus side and adjust VR8 so that the Composite Level is within the specification.
6. Select the fader lever to B-Bus side and adjust VR9 so that the Composite Level is within the specification.
7. Repeat the steps 5 and 6 so that the difference between A-bus output and B-Bus output is minimized.



3. KEY Level Adjustment

BOARD	MAIN
TP	PGM OUT1
ADJ.	VR7(BUS K),
SIGNAL	Color Bar Signal With Y Reference (White 100%)
M. EQ	Oscilloscope
SPEC.	100IRE±2IRE

1. Set the SET UP switch SW1 to the lower side (FS OFF) and SW2 to the upper side (BB OUT).
2. Supply the BB signal from the BB output connector of AW-SW350 to an EXT input of signal generator so that the signal generator is synchronized with the AW-SW350.
3. Press the (2) button of A-bus and B-bus, and **KEY AUTO** button as shown in the following figure.
4. Set the SOURCE SW to the IN5 position.
5. Turn the GAIN VR to the fully clockwise position.
6. Adjust VR7 (BUS K) so that the Composite Level is within the specification.



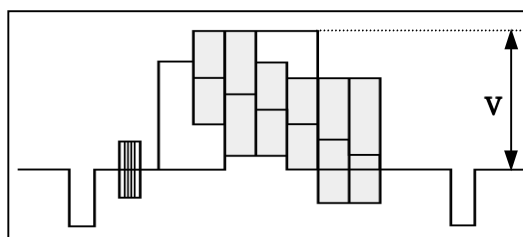
(2)

KEY AUTO

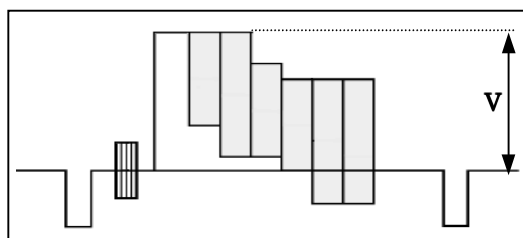
4. Color Bar Level Adjustment

BOARD	FSYNC
TP	PGM OUT1
ADJ.	VR701(BUS A),VR702(BUS B)
SIGNAL	-----
M. EQ	Oscilloscope
SPEC.	100IRE±2IRE

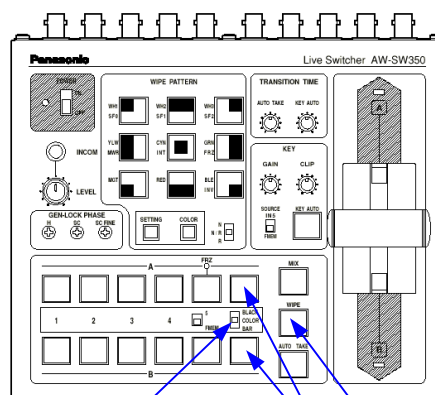
1. Set the SET UP switch SW1 and SW2 to the upper side (FS ON, BB OUT).
2. Set the **BLACK/COLOR/BAR** select switch to the BAR position.
3. Press the (3) buttons of A bus and B bus and **WIPE** button as shown in the following figure.
4. Move the fader lever to the A-Bus side and adjust VR701 so that the Composite Level is within the specification.
5. Move the fader lever to the B-Bus side and adjust VR702 so that the Composite Level is within the specification.
6. Repeat the steps 4. and 5 so that the difference between the A-bus output and B-Bus output is minimized.



<NTSC>



<PAL>



BLACK/COLOR/BAR

(3) WIPE

5. G/L SCH Adjustment

BOARD	MAIN
TP	-----
ADJ.	VR3(NT HD),VR2(PAL HD)
SIGNAL	Black Burst Signal
M. EQ	-----
SPEC.	Variable mid-point

1. Set the SET UP switch SW1 and SW2 to the lower side (FS OFF, G/L IN).
2. Supply a black burst signal to the G/L IN connector from a signal Generator.
3. <NTSC Model>
 - 1) Rotate the VR3 (NT HD) to either direction and Inspect the variable range where the D3 (SCH) indicator light-up
 - 2) Set VR3 at the center position where the D3 (SCH) light up.
4. <PAL Model>
 - 1) Rotate the VR2 (PAL HD) to either direction and Inspect the variable range where the D3 (SCH) indicator light-up
 - 2) Set VR2 at the center position where the D3 (SCH) light up.

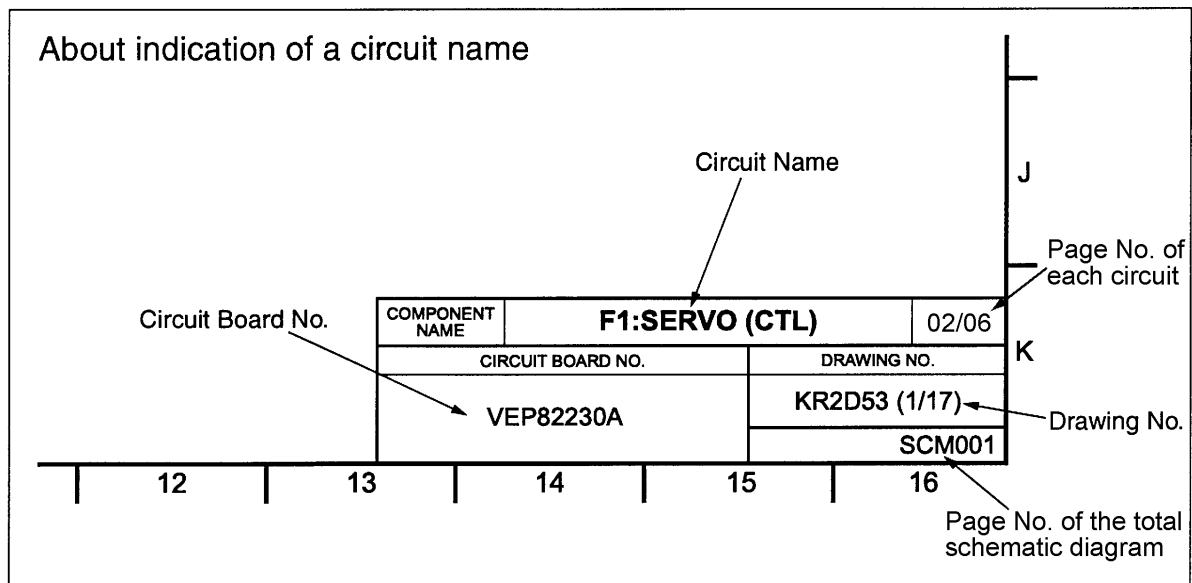
6. INT Frequency Adjustment

BOARD	MAIN
TP	TP14
ADJ.	VR4
SIGNAL	-----
M. EQ	Frequency Counter
SPEC.	27MHz±10Hz

1. Be sure to warm up the unit for at least 10 minutes after turning it on.
2. Disconnect the black burst signal to the G/L input connector.
3. Connect the frequency counter to TP14 on the MAIN board and adjust VR4 so that the frequency is within the specification.

SECTION 3

SCHEMATIC DIAGRAMS



NOTE:


BE SURE TO MAKE YOUR ORDERS OF REPLACEMENT PARTS ACCORDING TO PARTS LIST, SECTION 7

CAUTION

THE [] MARK INDICATES THE PRIMARY CIRCUIT TO DISTINGUISH THE PRIMARY FROM THE SECONDARY CIRCUIT.

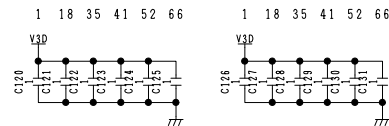
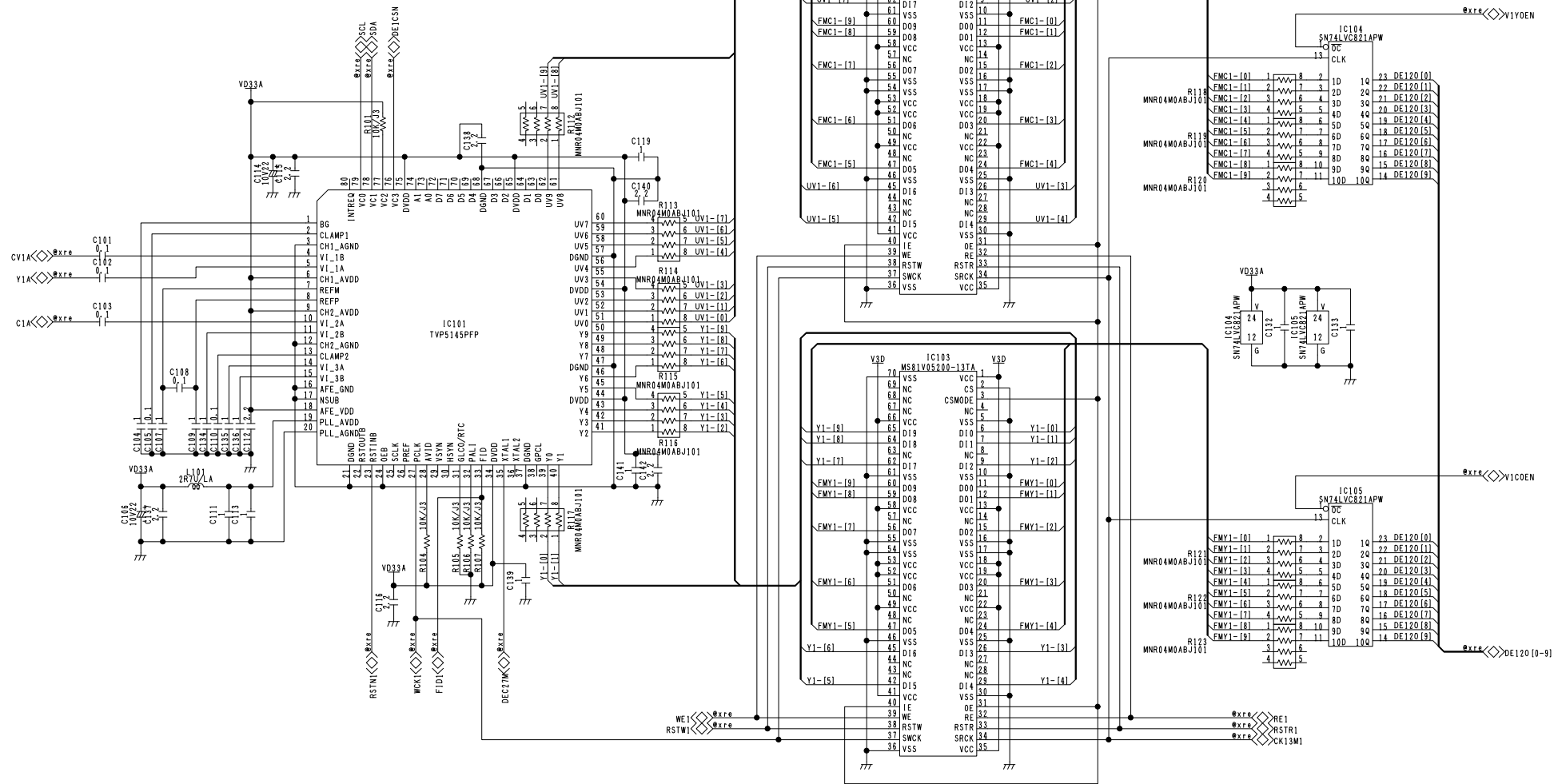
PAY ATTENTION NOT TO RECEIVE AN ELECTRIC SHOCK DURING REPAIR AND SERVICE OF THE PRODUCTS.

IMPORTANT SAFETY NOTICE:

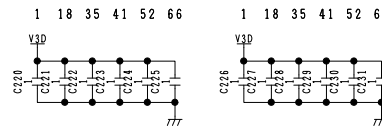
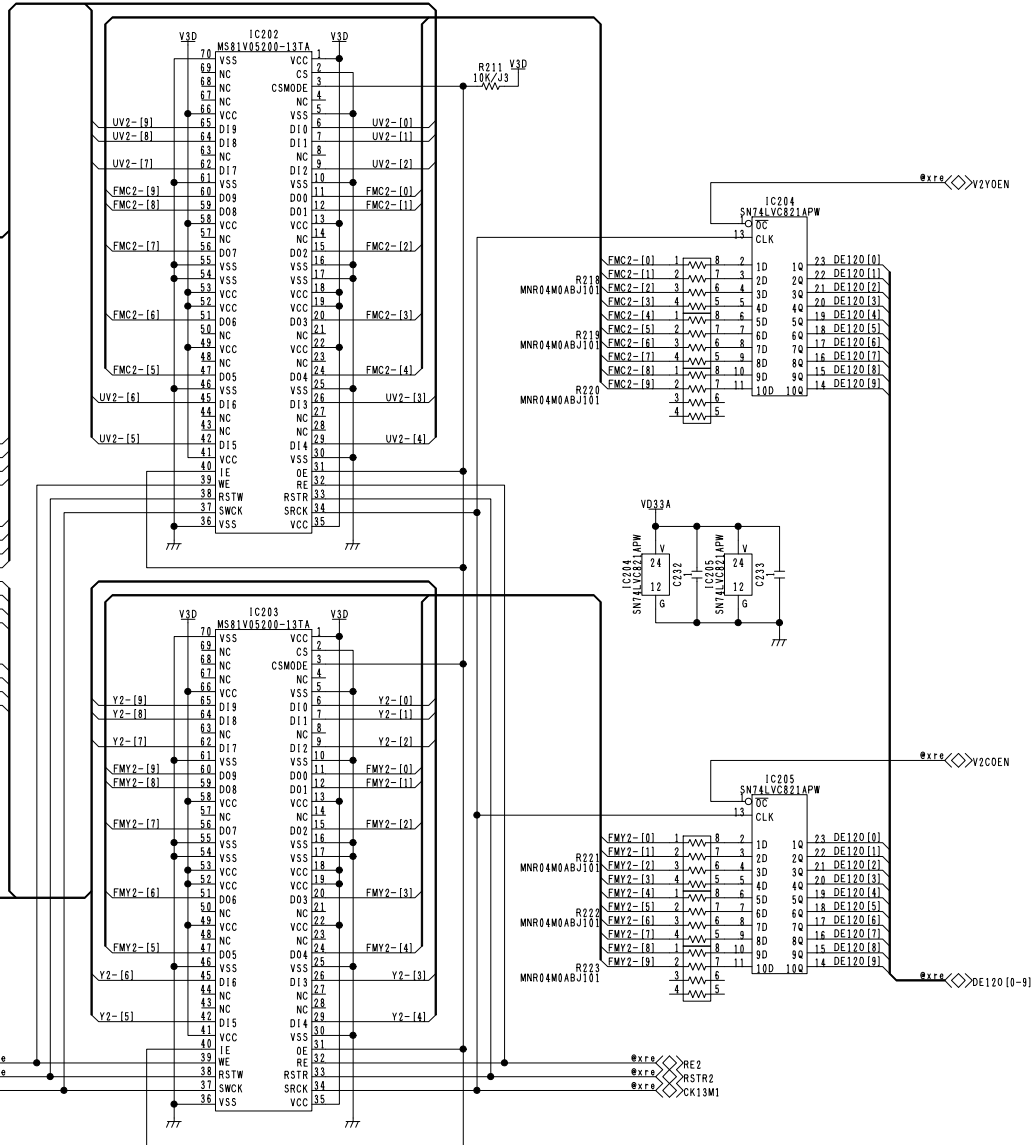
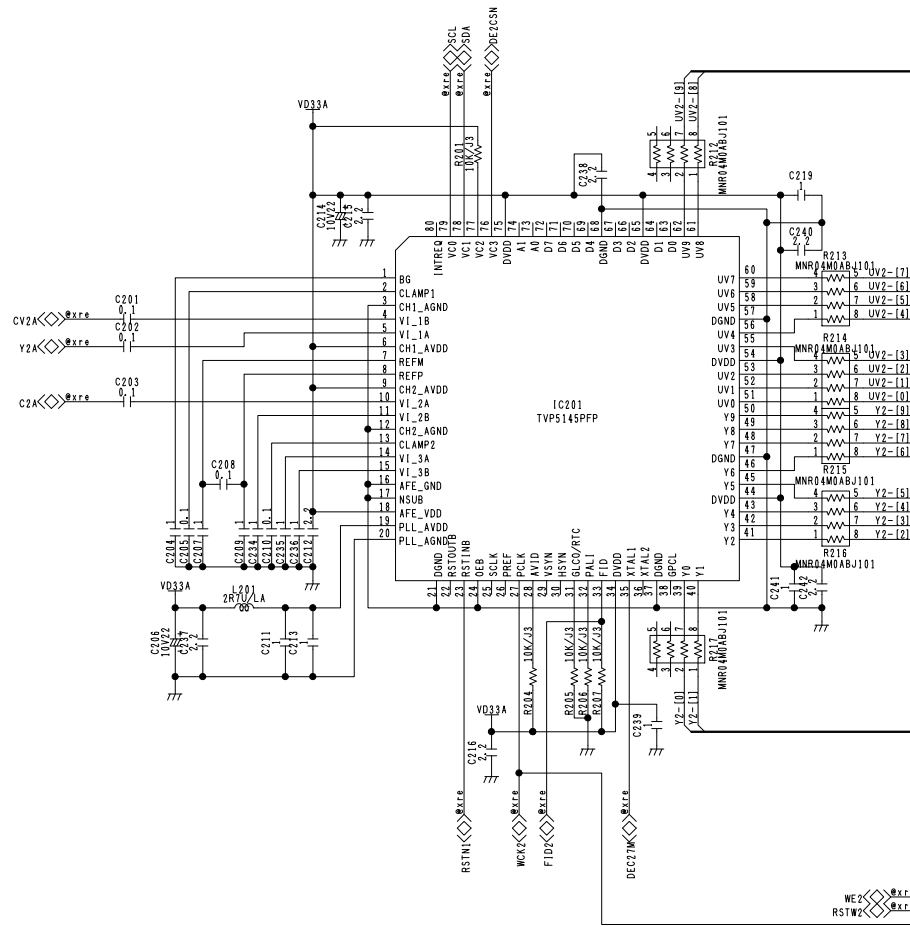
COMPONENTS IDENTIFIED WITH THE MARK  HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

CONTENTS

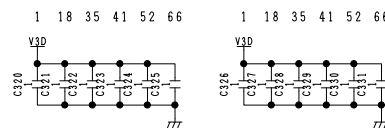
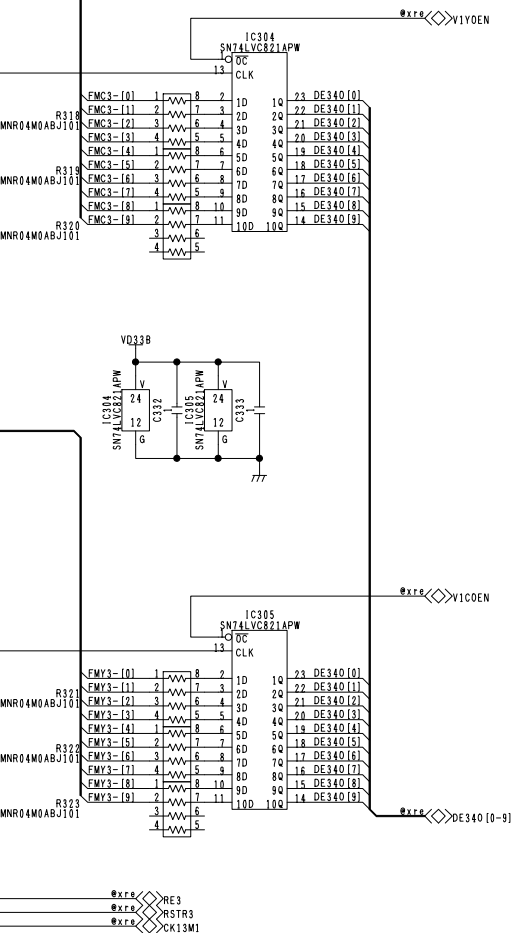
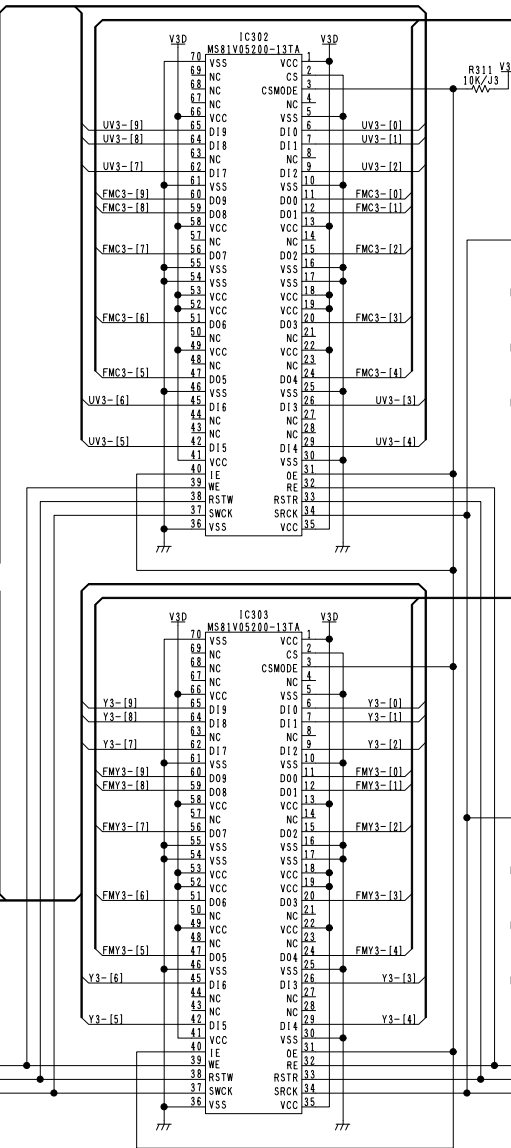
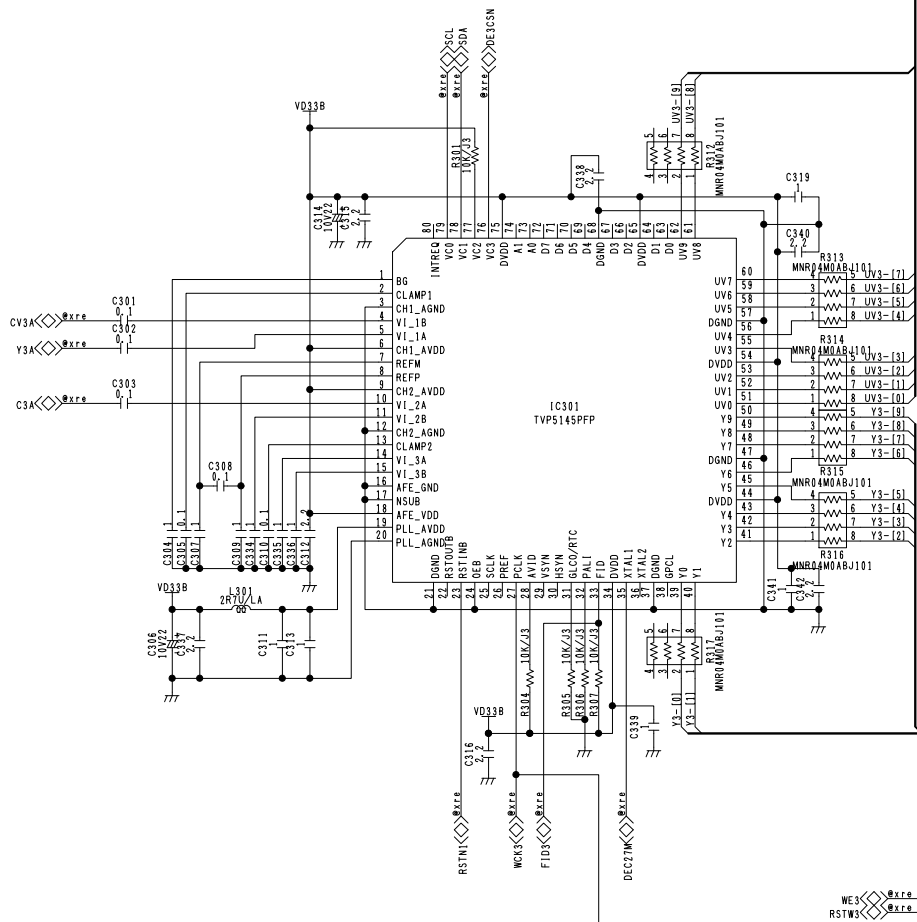
F_SYNC.....	SCM001
MAIN.....	SCM010
PANEL.....	SCM028
BNC.....	SCM029
S_CONT.....	SCM030



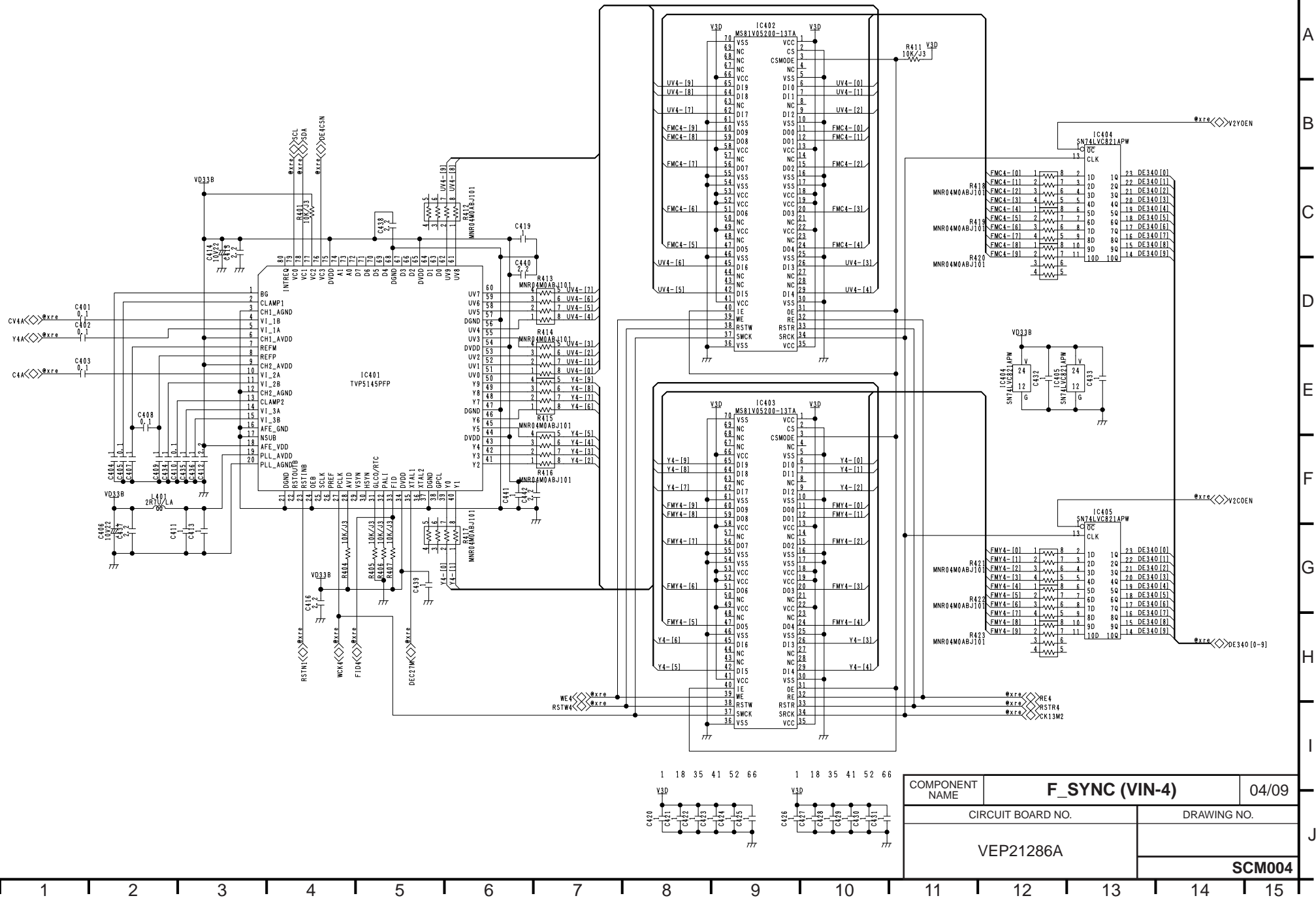
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CIRCUIT BOARD NO.	DRAWING NO.	
VEP21286A	SCM001	



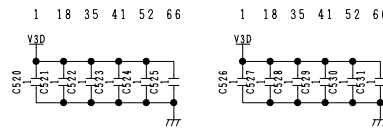
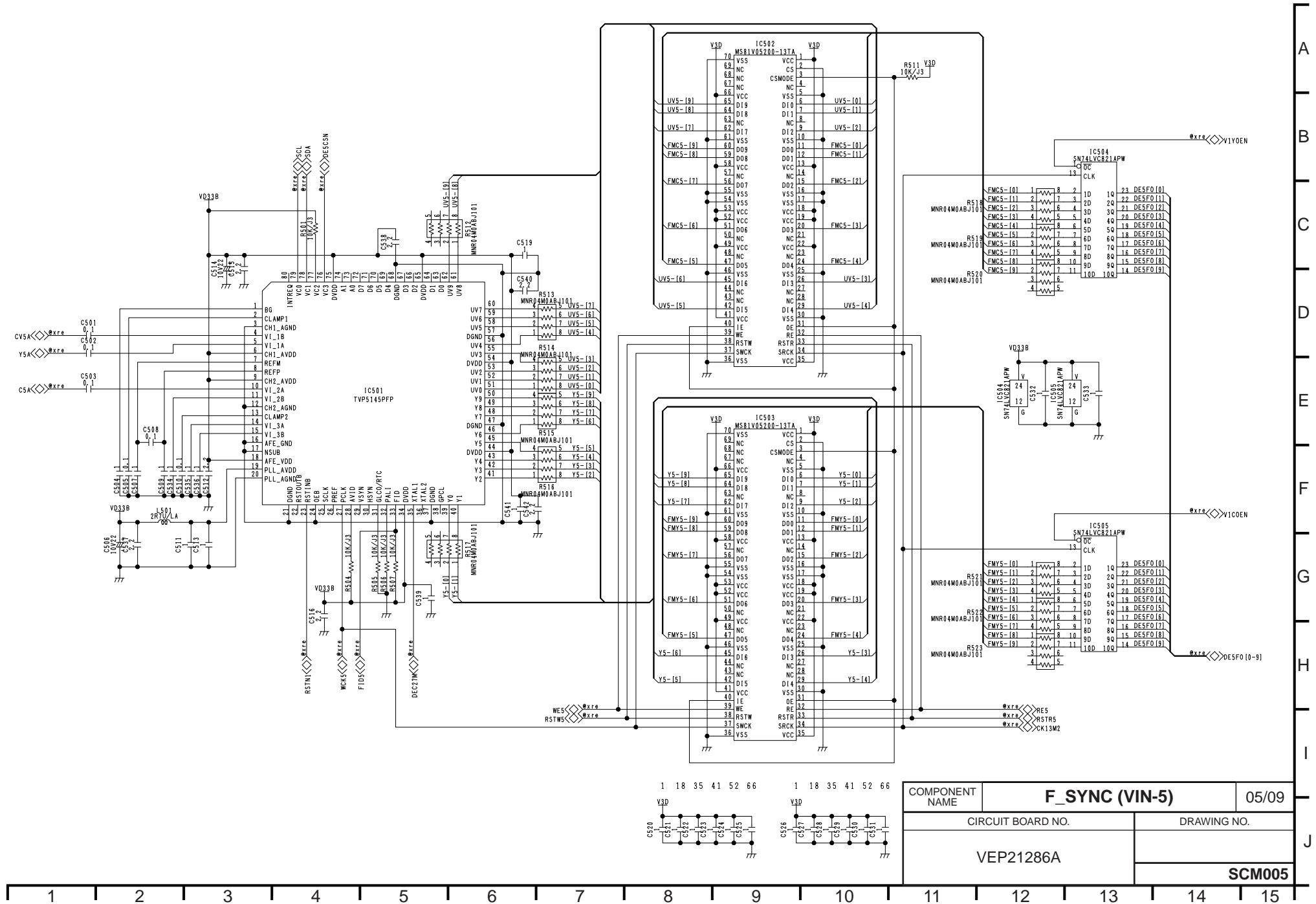
COMPONENT NAME	F_SYNC (VIN-2)	02/09
CIRCUIT BOARD NO.	VEP21286A	DRAWING NO.
		SCM002



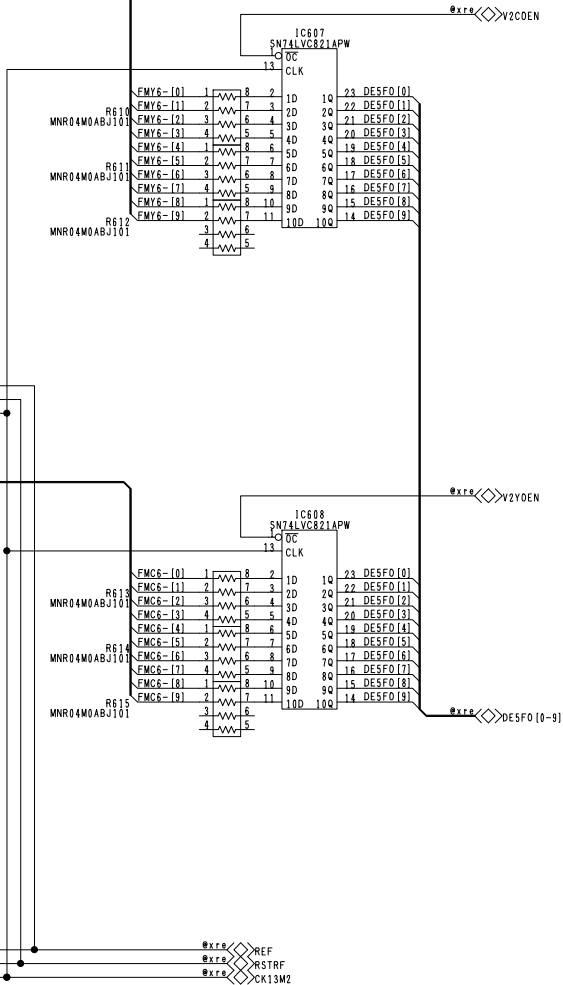
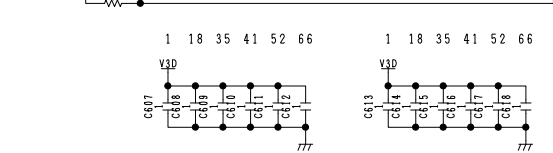
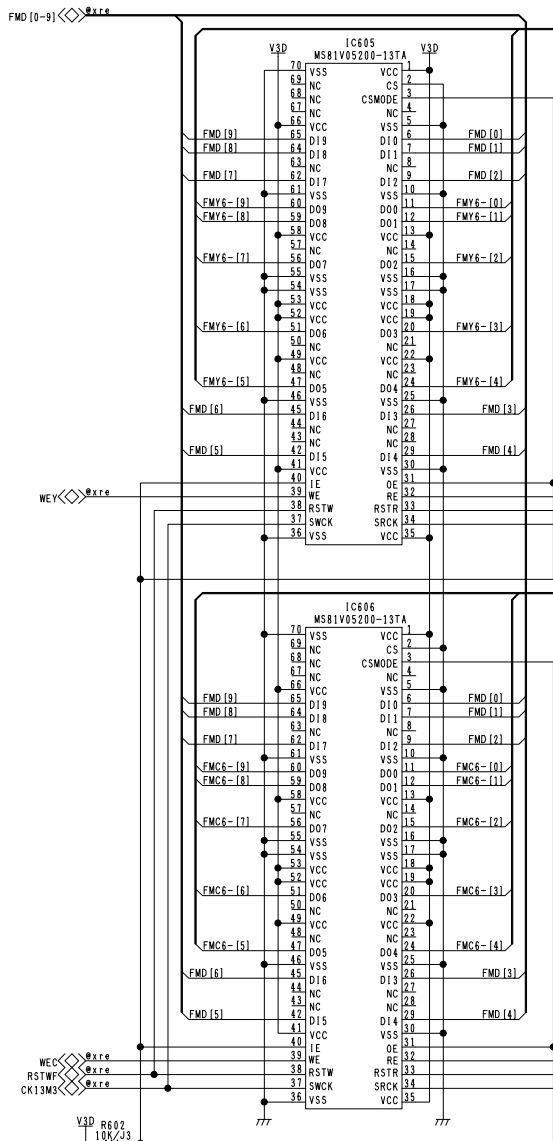
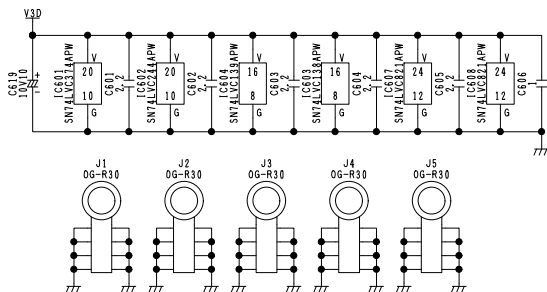
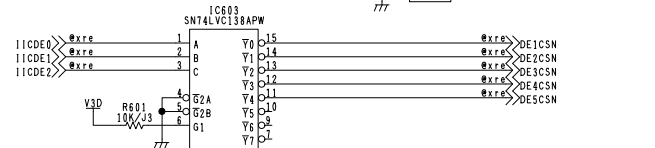
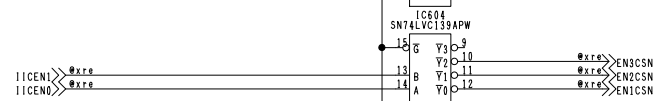
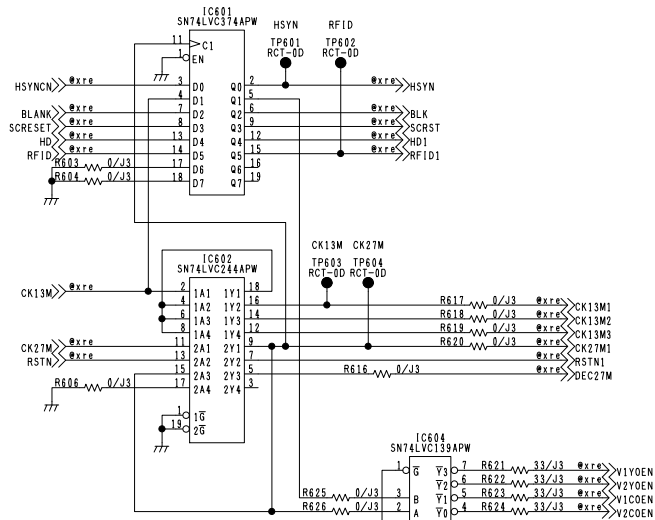
COMPONENT NAME	F_SYNC (VIN-3)	03/09
CIRCUIT BOARD NO.	DRAWING NO.	
VEP21286A	SCM003	



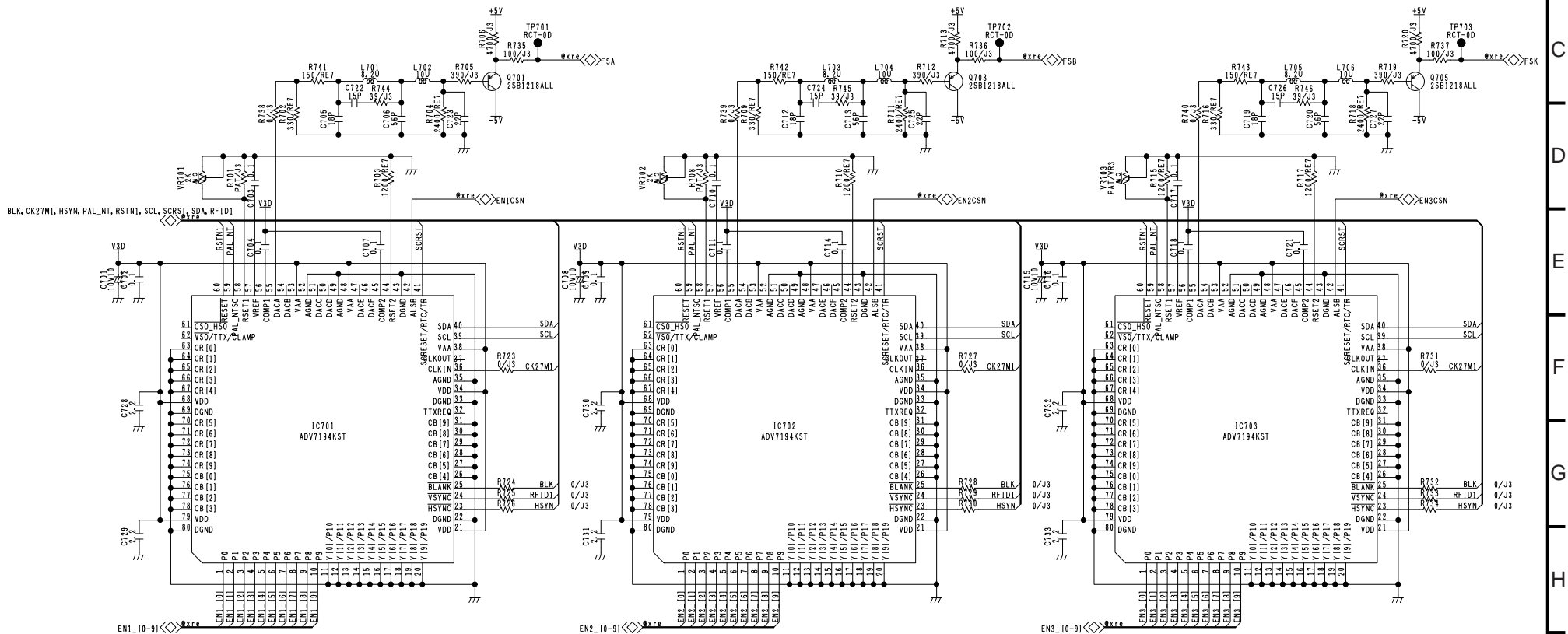
COMPONENT NAME	F_SYNC (VIN-4)	04/09
CIRCUIT BOARD NO.	VEP21286A	DRAWING NO.
		SCM004



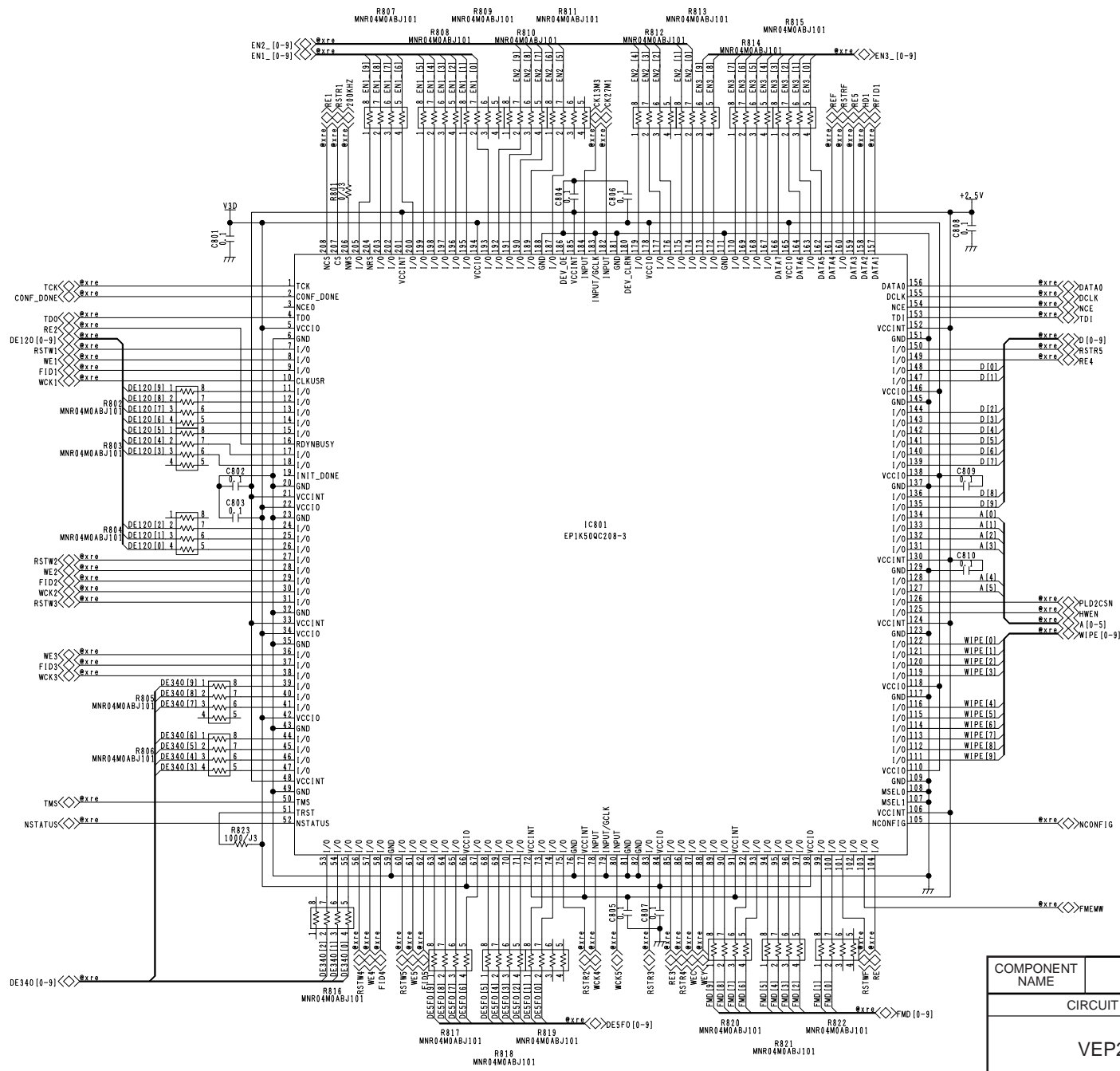
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CIRCUIT BOARD NO.	VEP21286A	DRAWING NO.
		SCM005

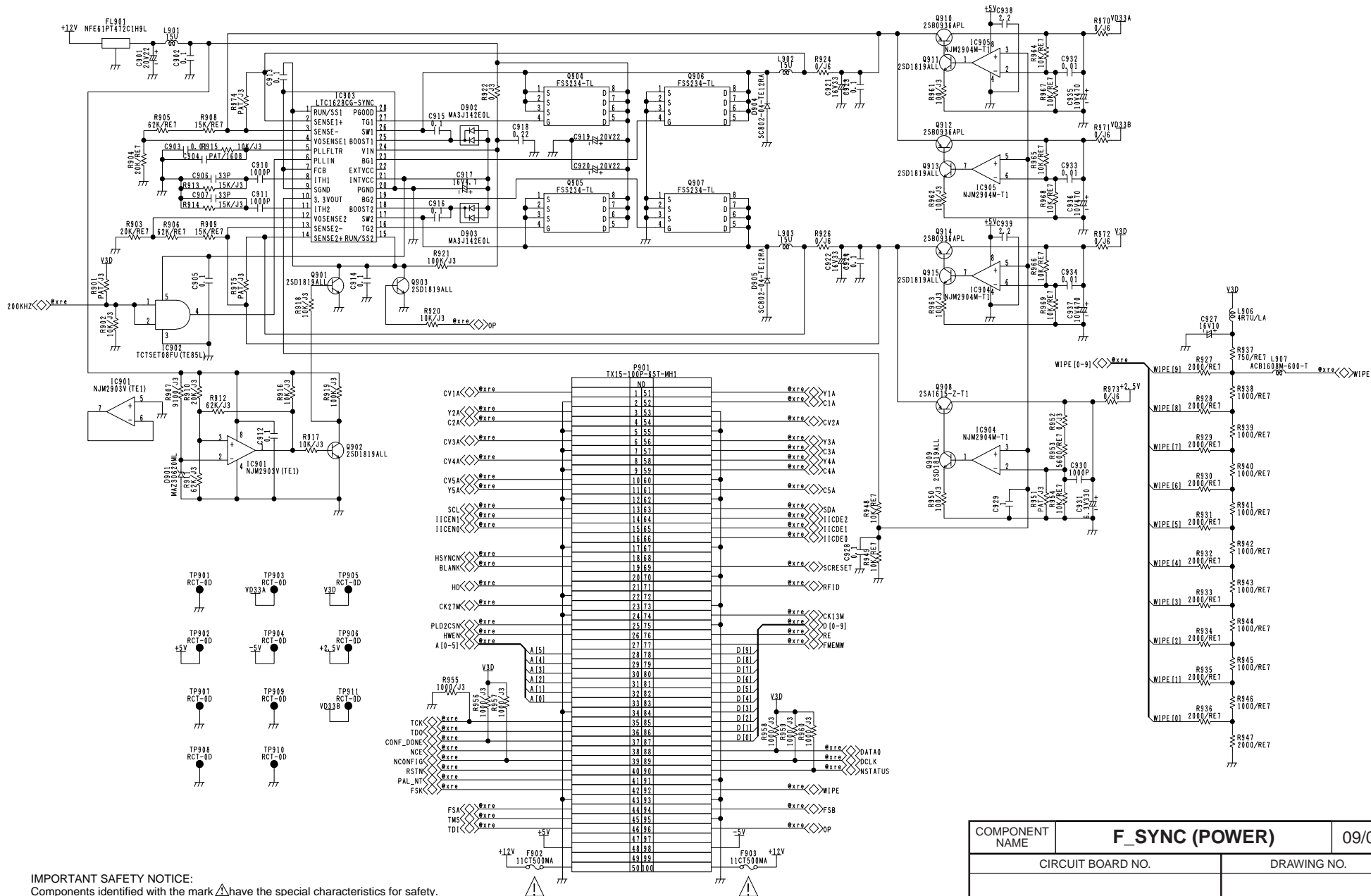


COMPONENT NAME	F_SYNC (FMEN)	06/09
CIRCUIT BOARD NO.	DRAWING NO.	
VEP21286A	SCM006	

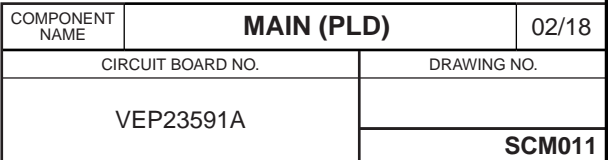


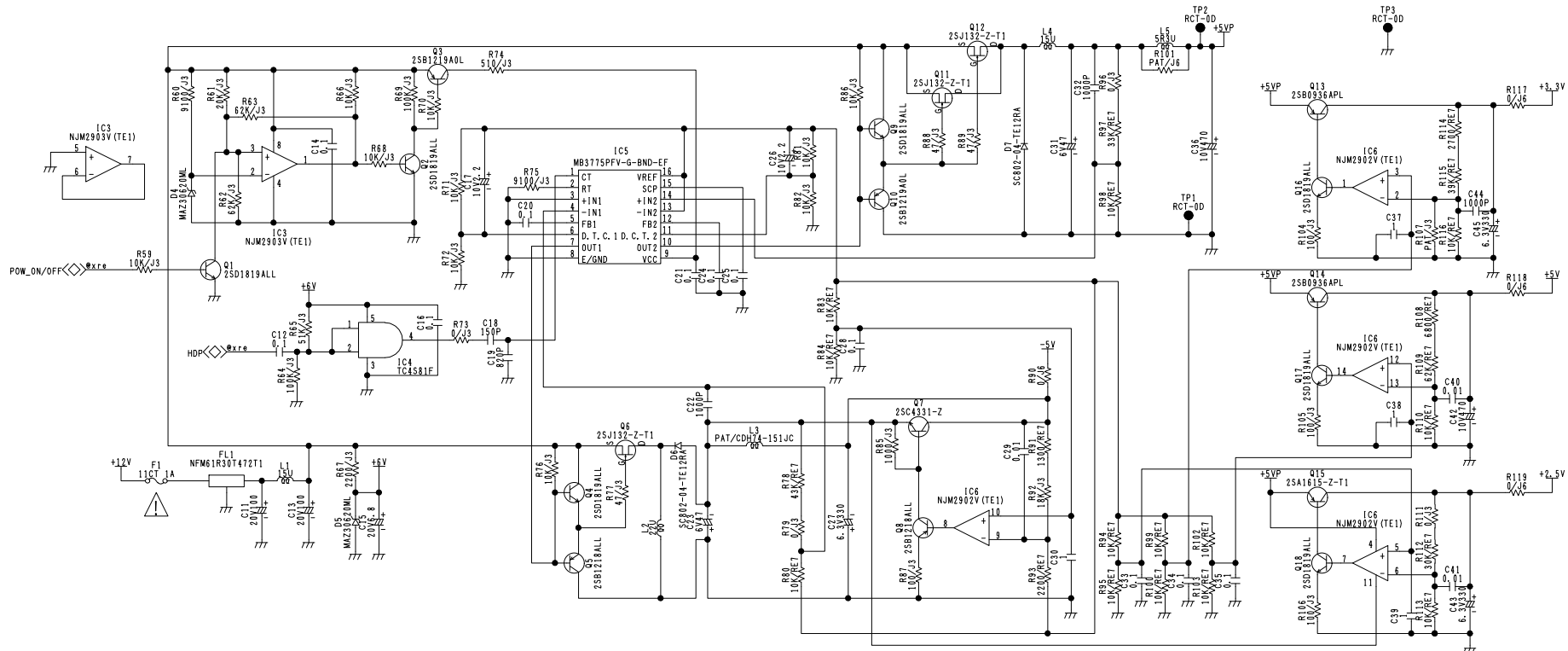
COMPONENT NAME	F_SYNC (DEC)	07/09
CIRCUIT BOARD NO.	DRAWING NO.	
VEP21286A		
		SCM007






COMPONENT NAME	F_SYNC (POWER)	09/09
CIRCUIT BOARD NO.	DRAWING NO.	
VEP21286A		SCM009





IMPORTANT SAFETY NOTICE:
 Components identified with the mark  have the special characteristics for safety.
 When replacing any of these components, use only the same type.

COMPONENT NAME		MAIN (POWER)	03/18
CIRCUIT BOARD NO.		DRAWING NO.	
VEP23591A		SCM012	

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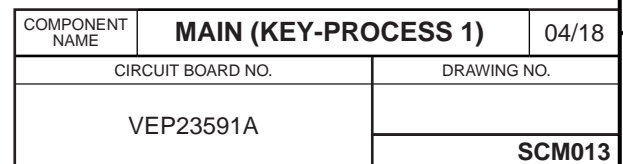
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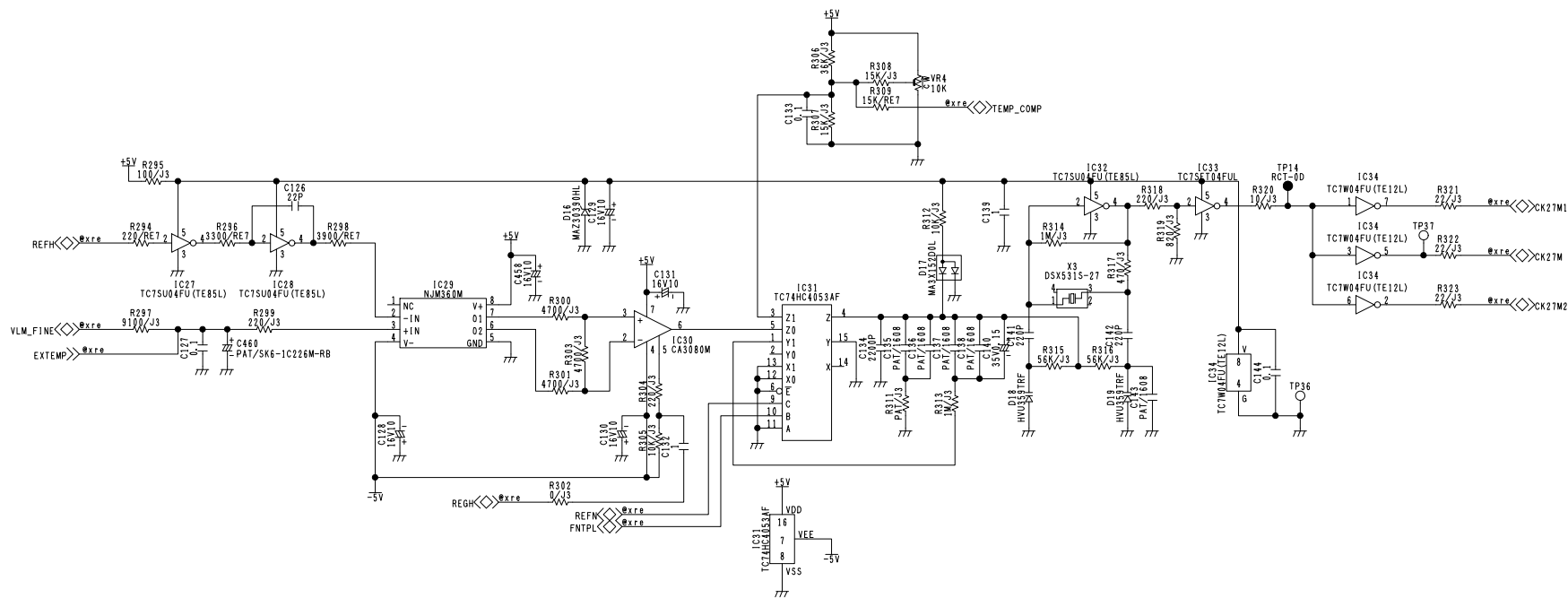
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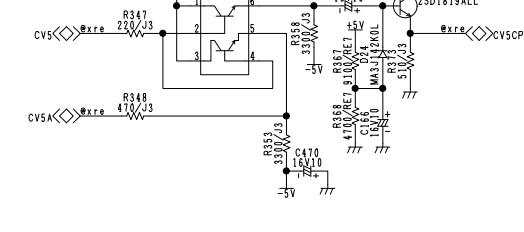
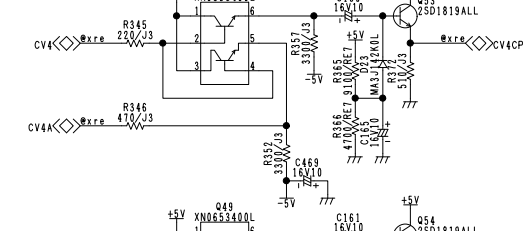
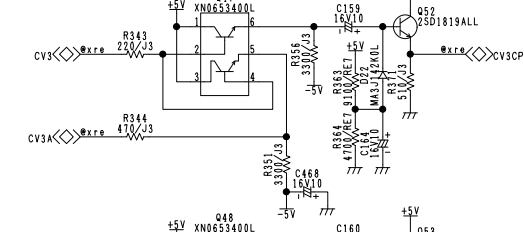
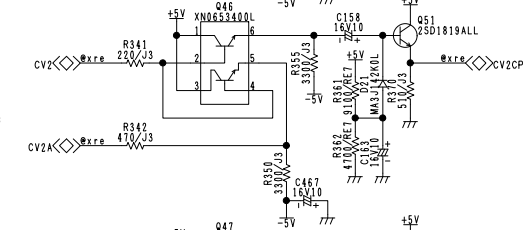
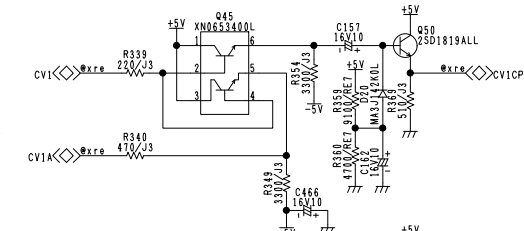
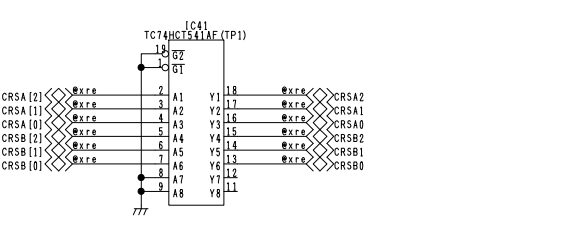
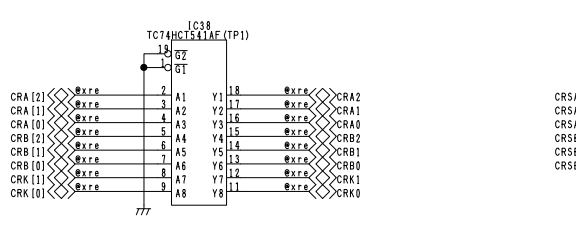
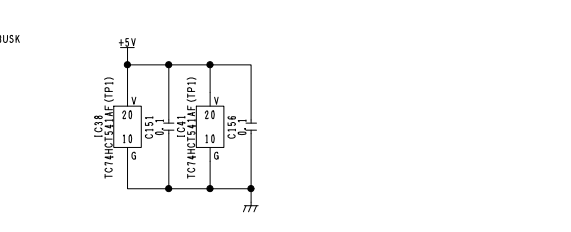
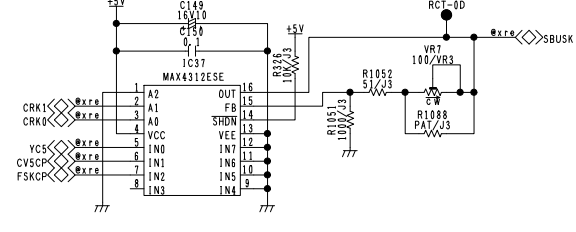
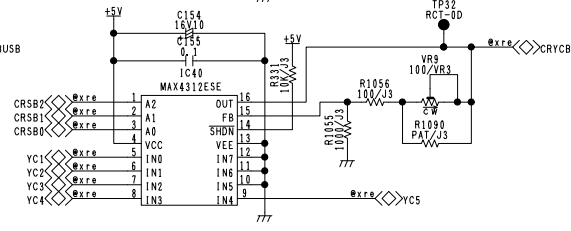
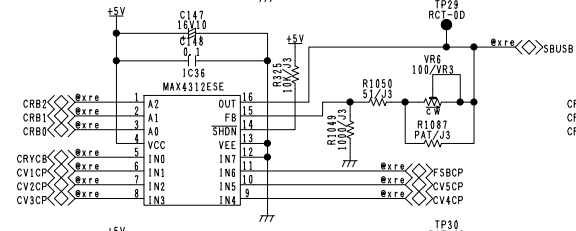
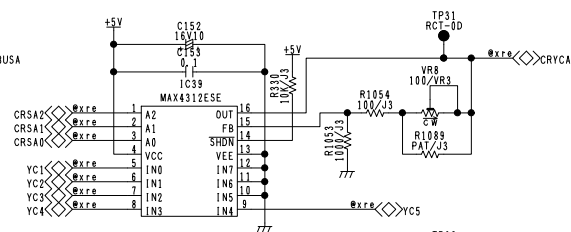
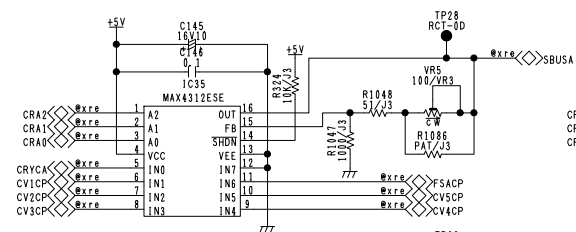
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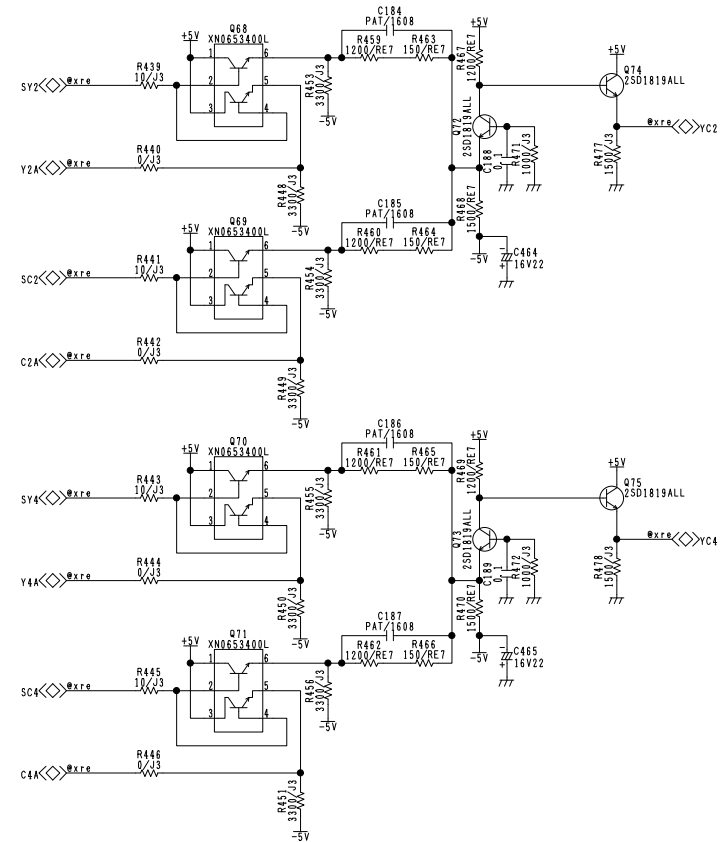
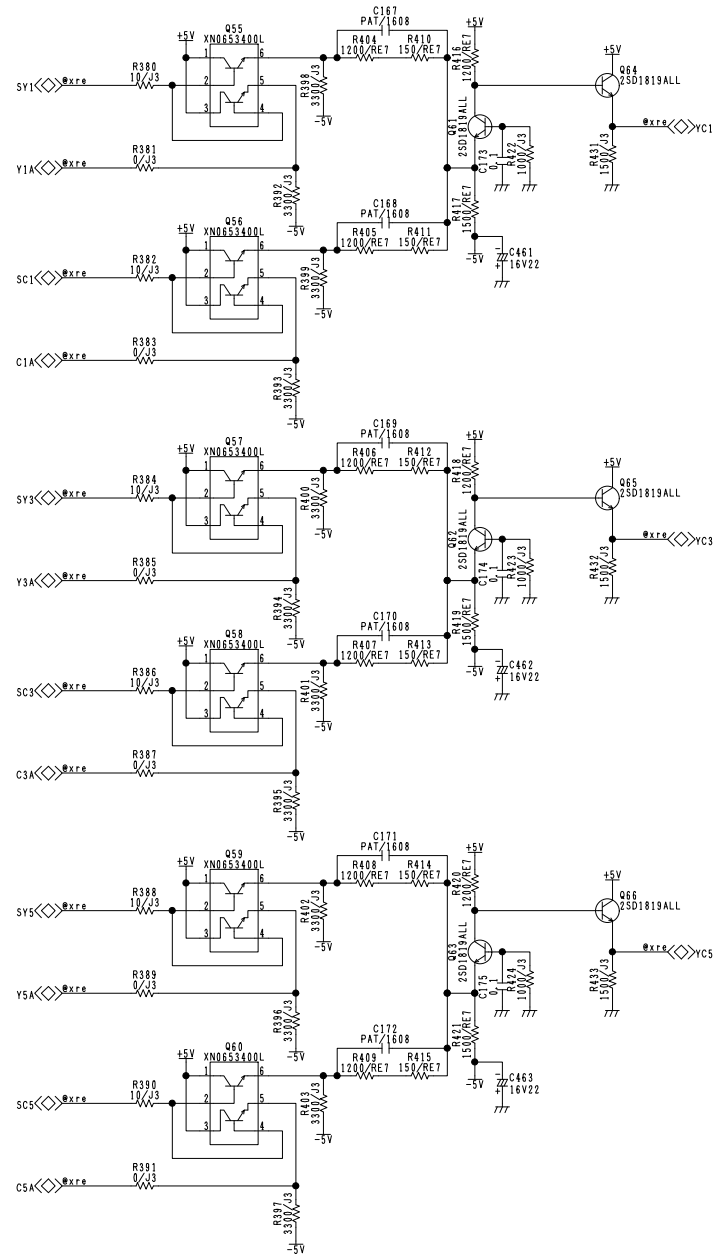
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COMPONENT NAME	MAIN (G/L 2)		07/18
CIRCUIT BOARD NO.		DRAWING NO.	
VEP23591A			
		SCM016	



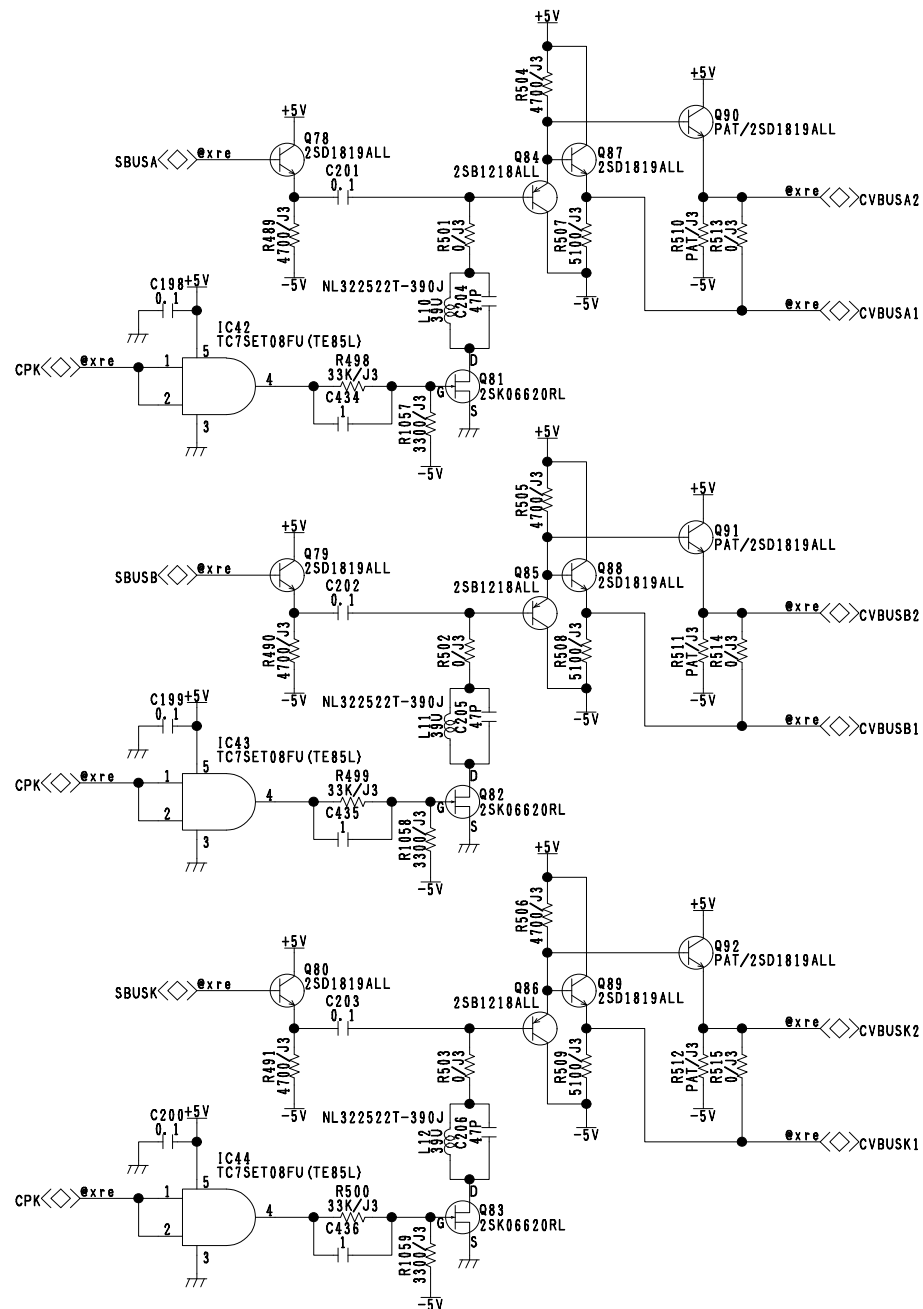
COMPONENT NAME	MAIN (CROSS POINT)	08/18
CIRCUIT BOARD NO.	DRAWING NO.	
VEP23591A	SCM017	



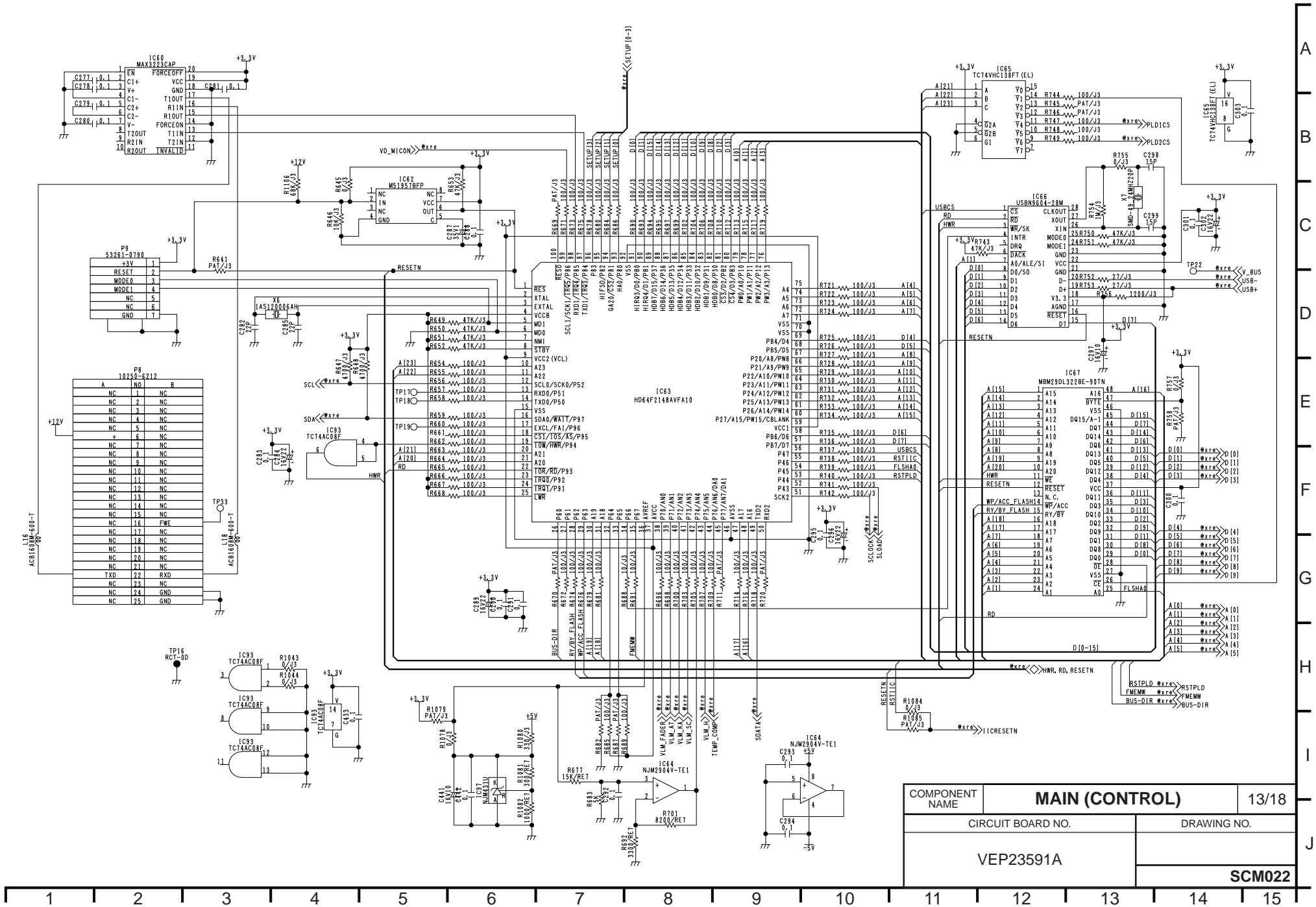
COMPONENT NAME	MAIN (Y/C MIX)		09/18
CIRCUIT BOARD NO.		DRAWING NO.	
VEP23591A		SCM018	

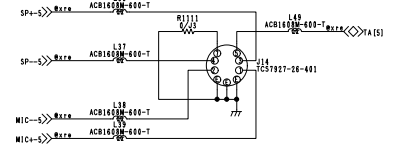
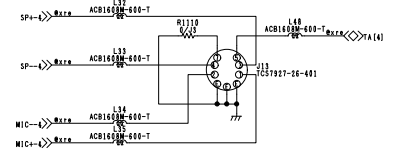
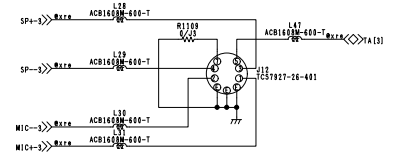
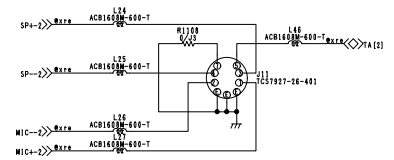
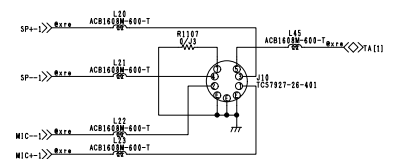
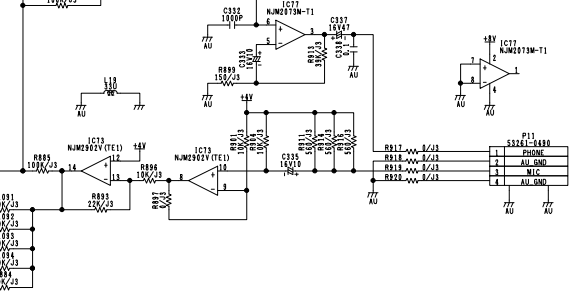
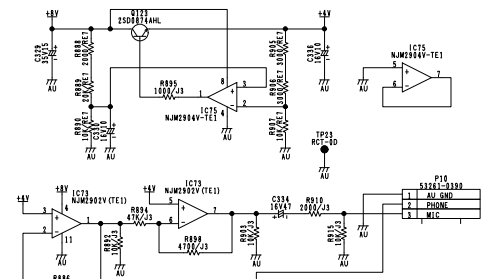
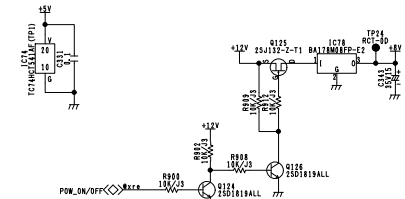
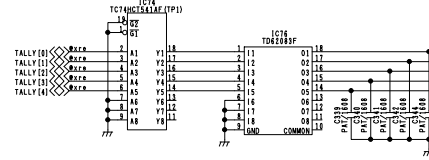
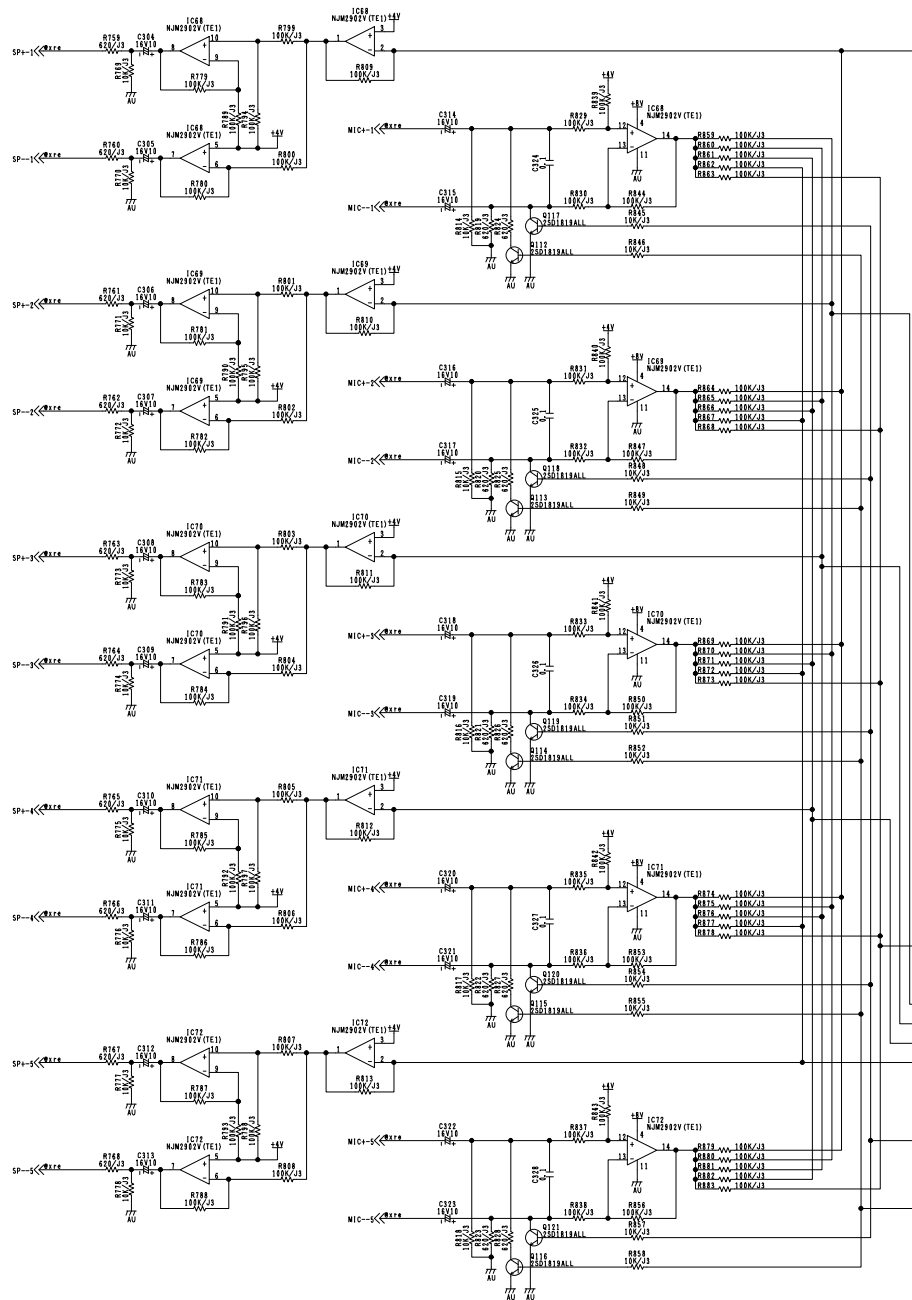
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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

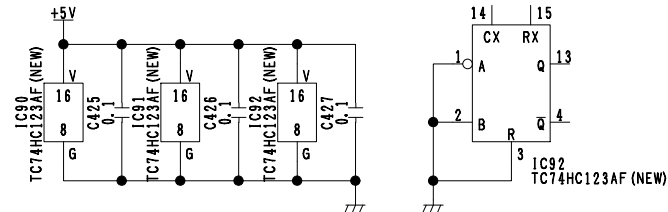
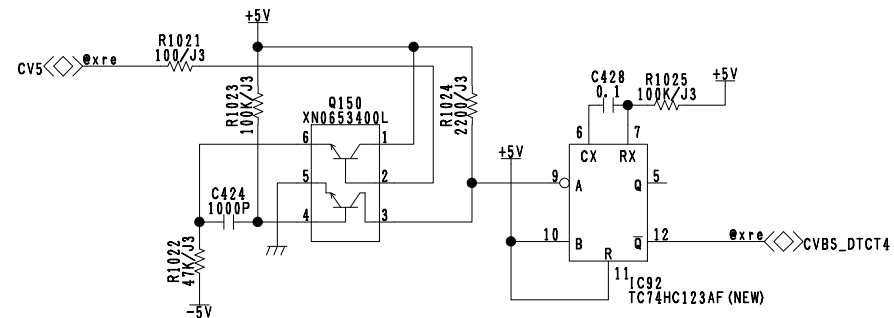
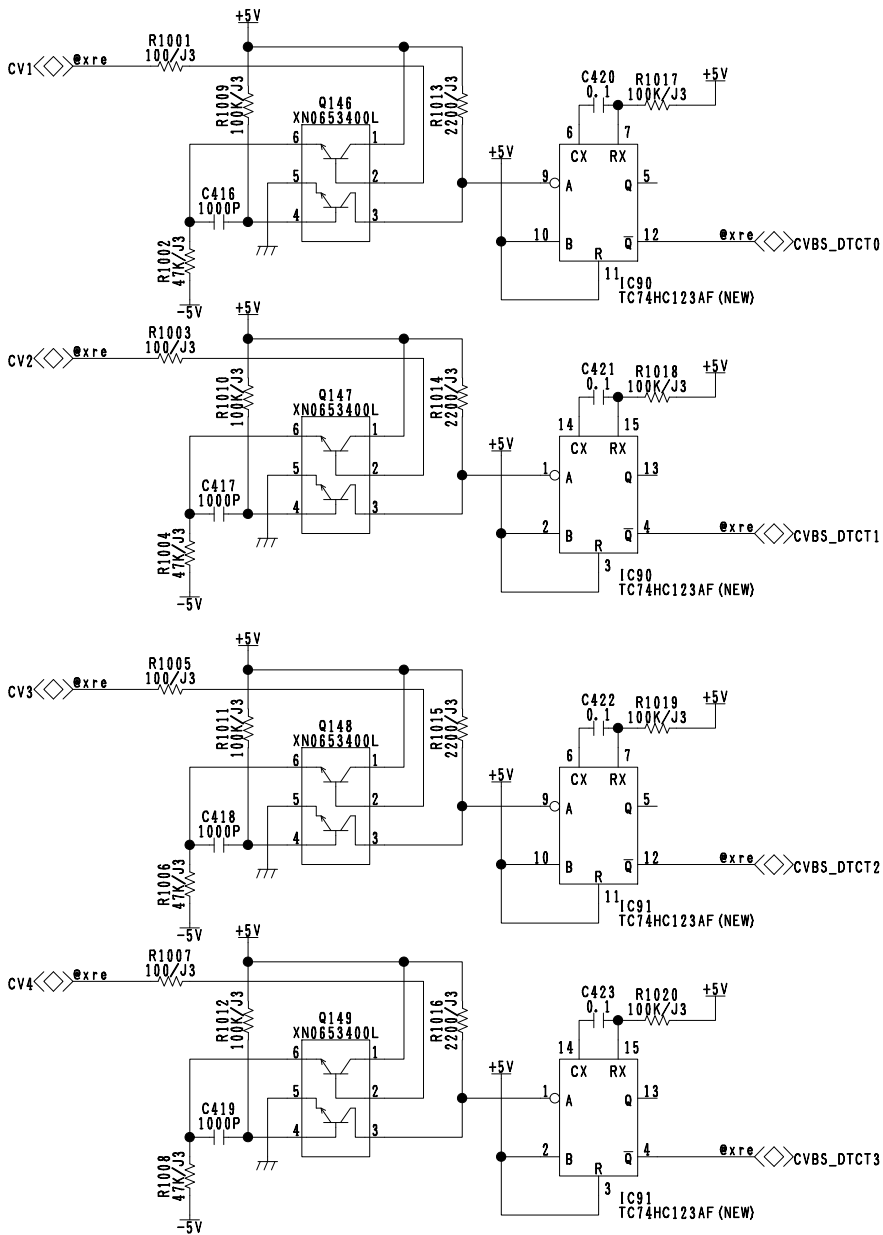


COMPONENT NAME	MAIN (BUS CLAMP)		10/18
CIRCUIT BOARD NO.		DRAWING NO.	
VEP23591A			
		SCM019	

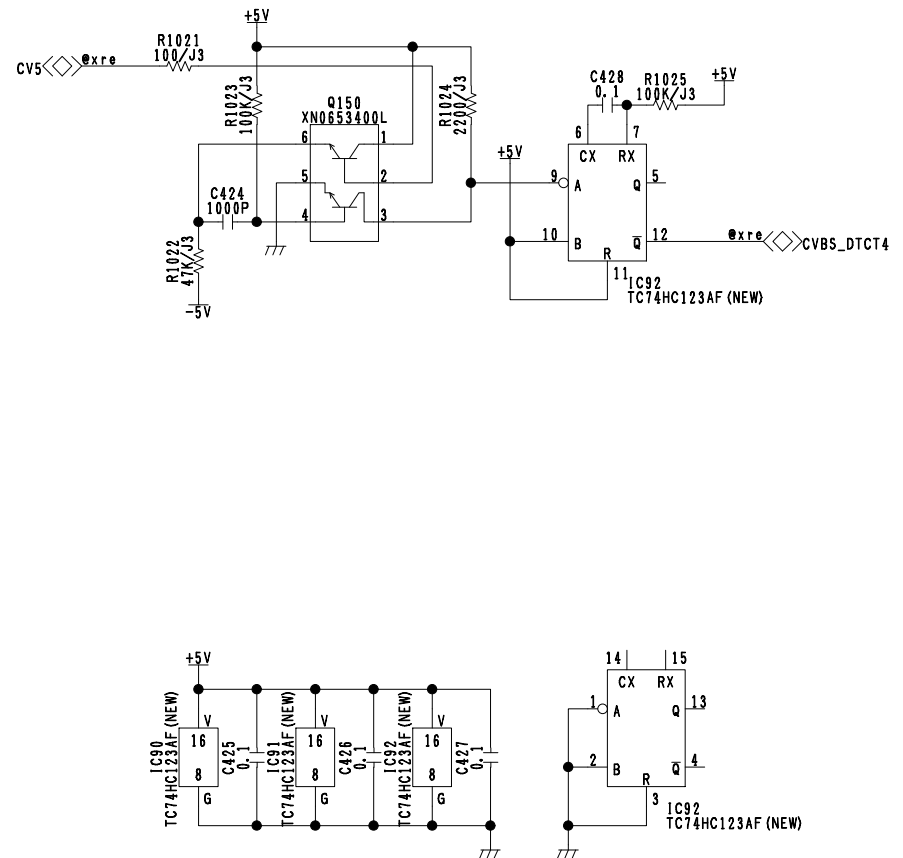
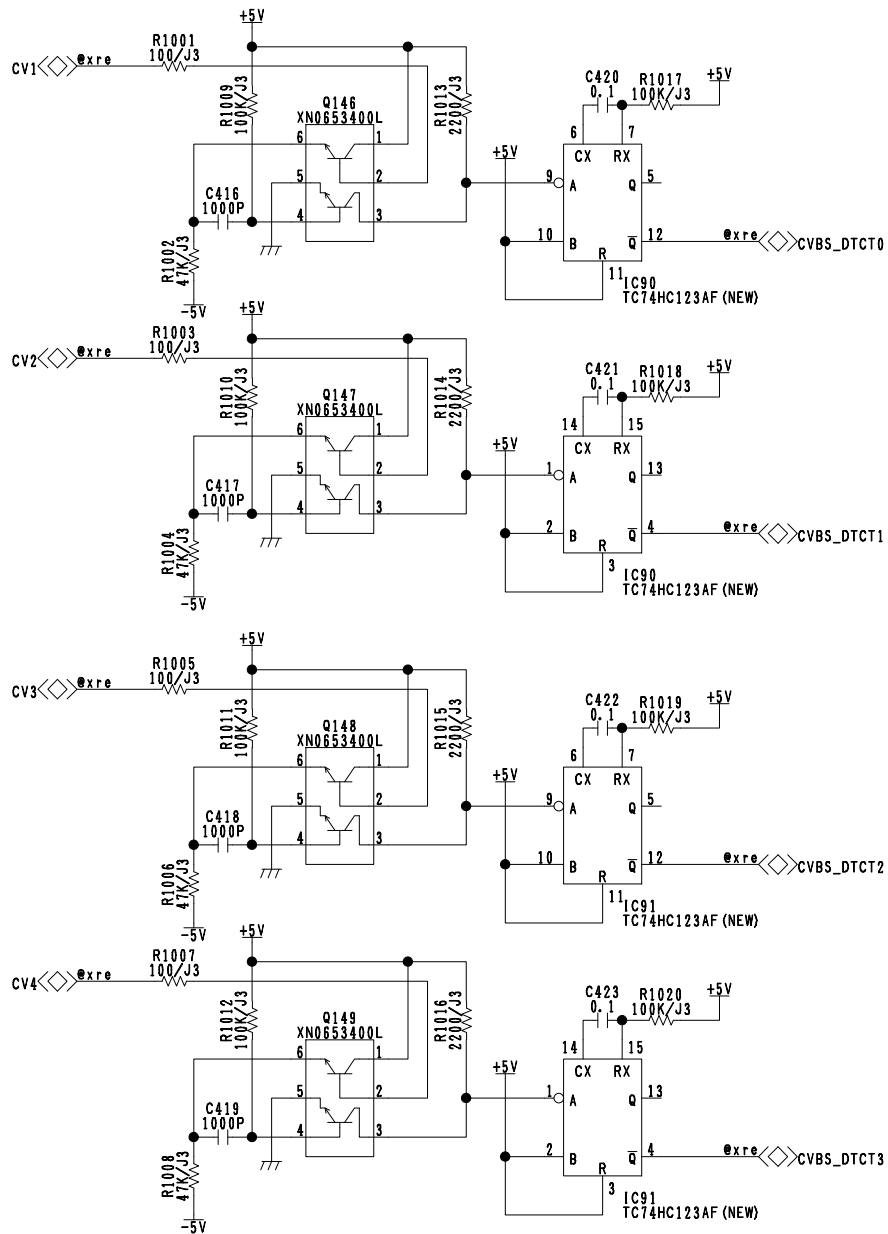




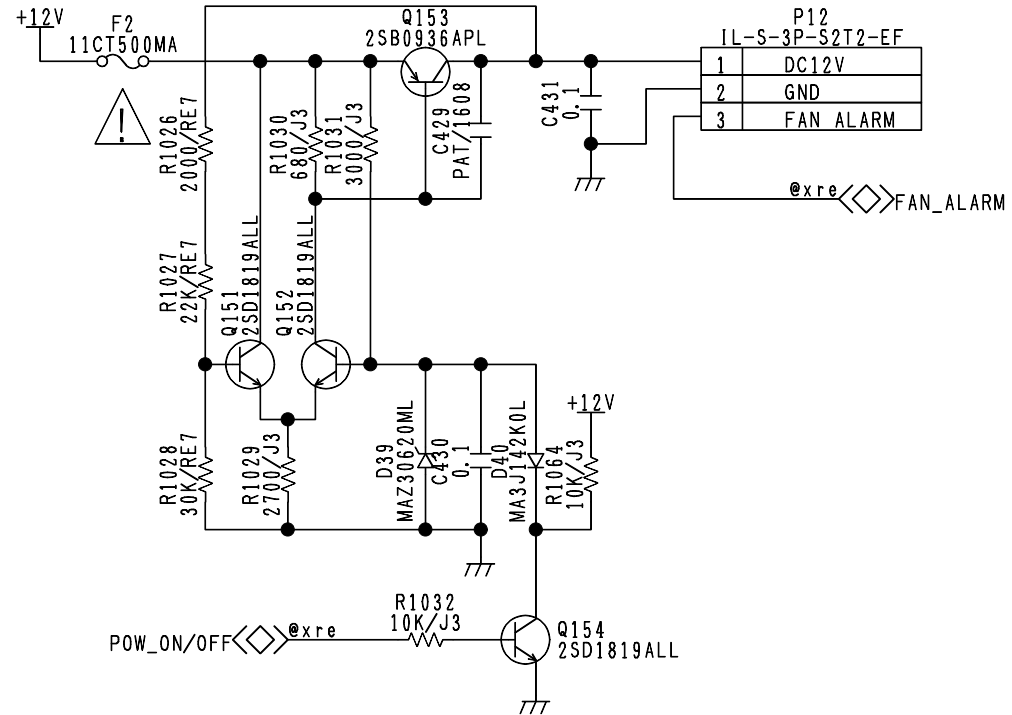
COMPONENT NAME	MAIN (INCOM)		14/18
CIRCUIT BOARD NO.		DRAWING NO.	
VEP23591A			
		SCM023	




COMPONENT NAME	MAIN (BLACK BURST)	17/18
CIRCUIT BOARD NO.	DRAWING NO.	
VEP23591A	SCM025	

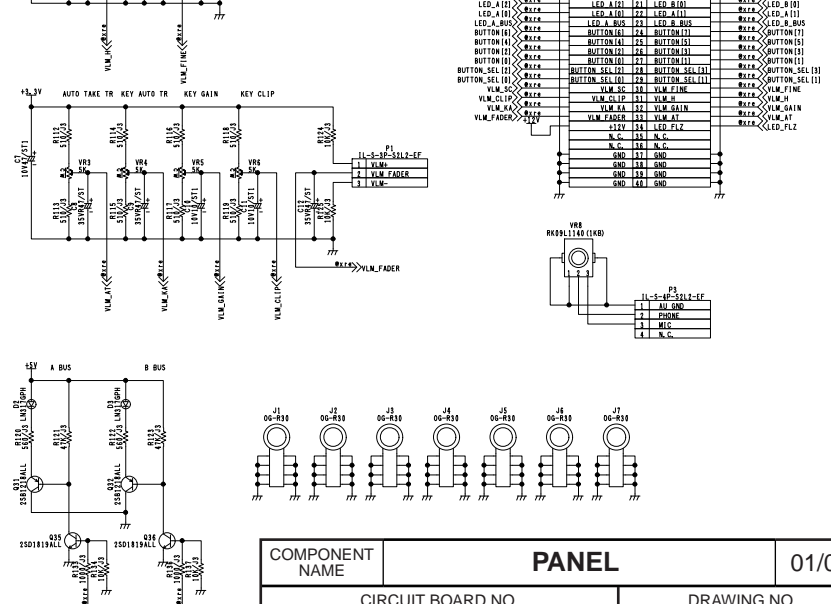
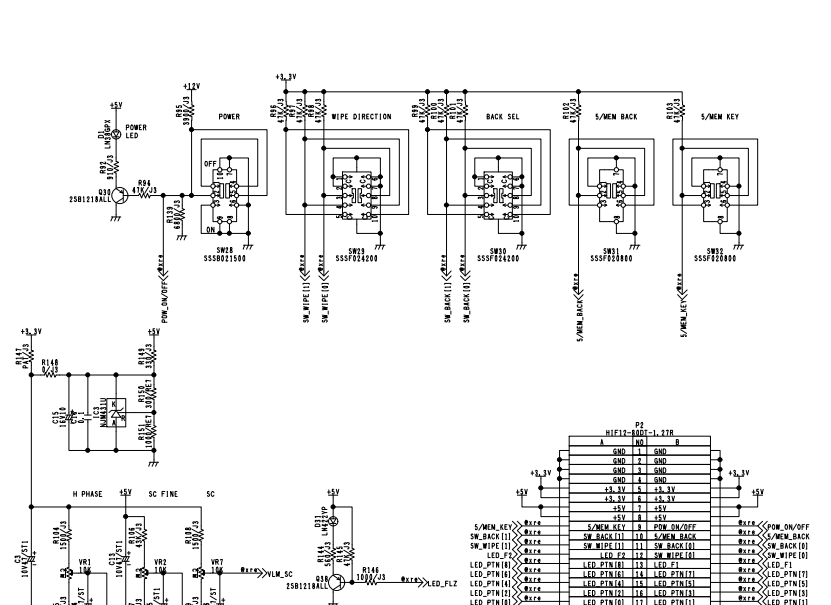
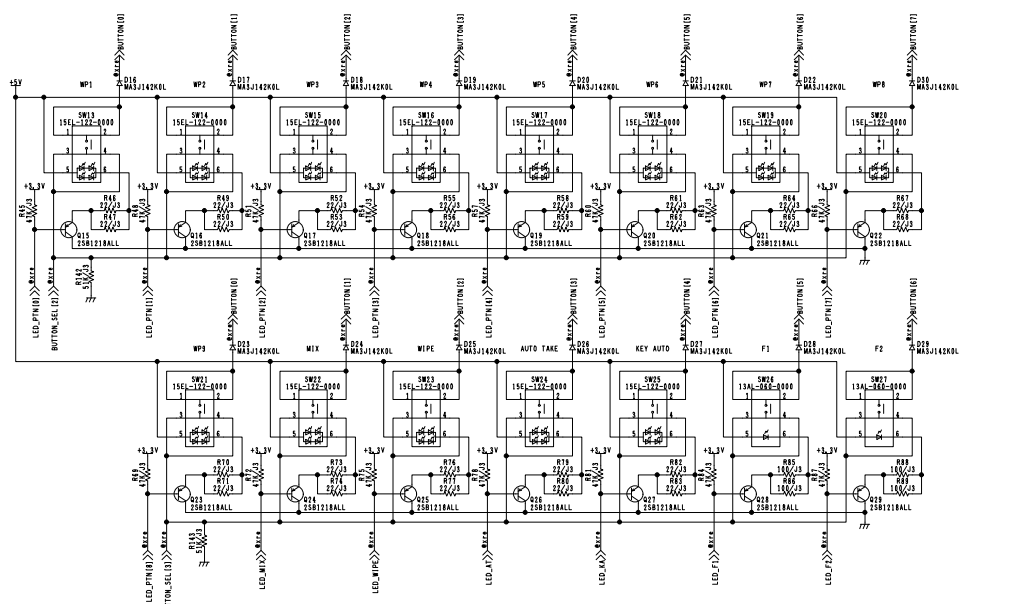
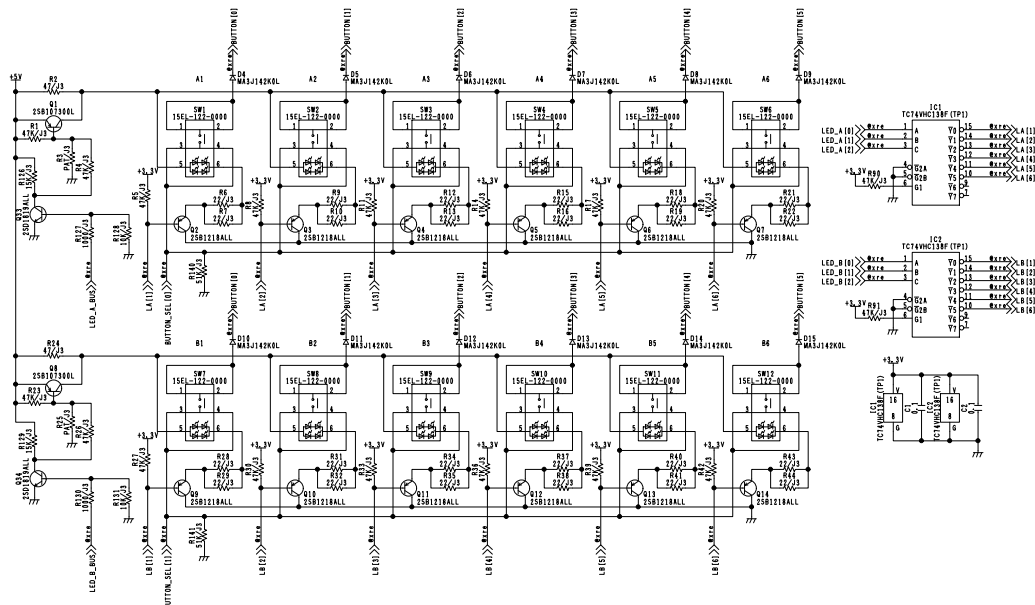


COMPONENT NAME	MAIN (CV DETECT)	17/18
CIRCUIT BOARD NO.		DRAWING NO.
VEP23591A		SCM026

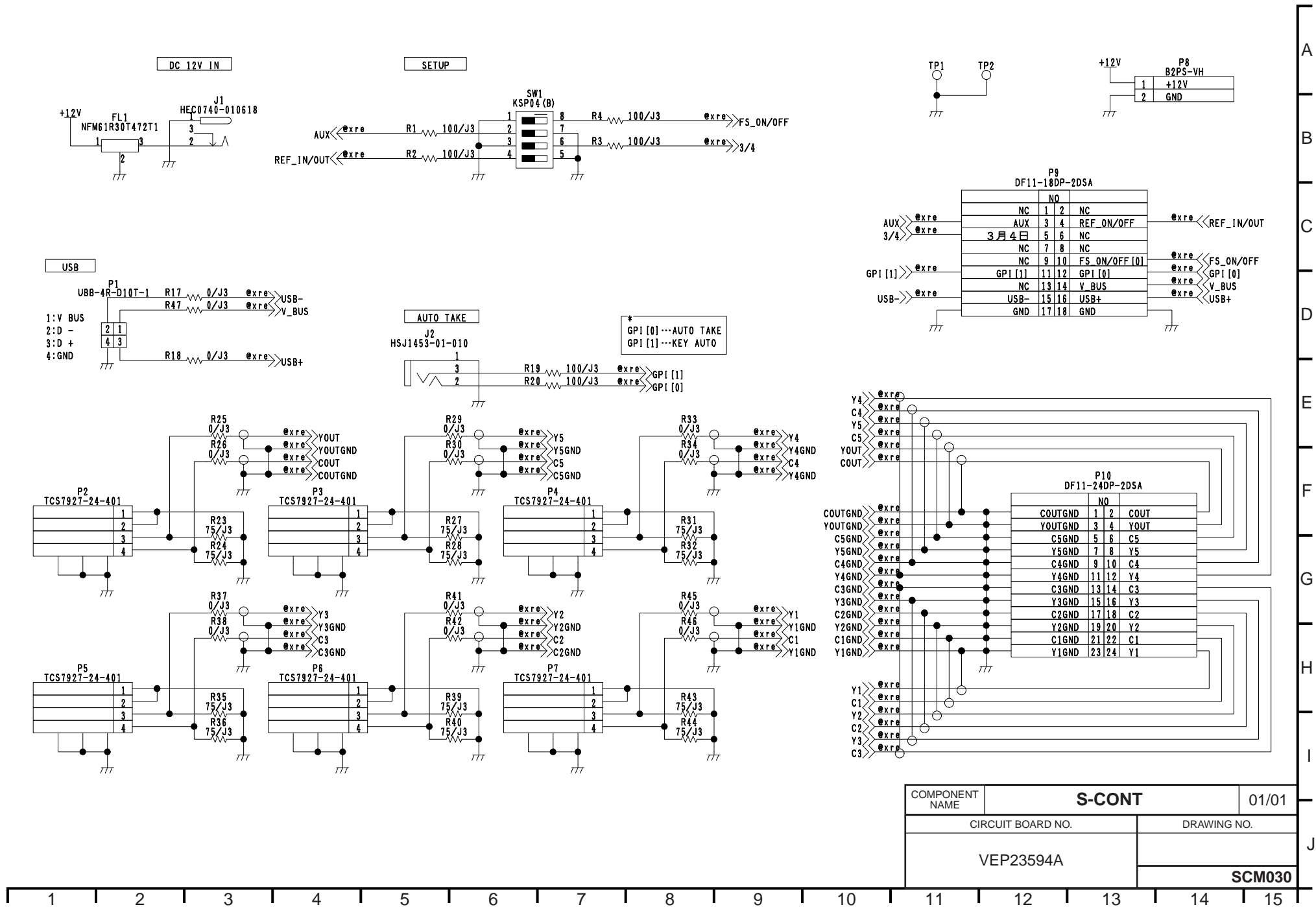


IMPORTANT SAFETY NOTICE:
Components identified with the mark  have the special characteristics for safety.
When replacing any of these components, use only the same type.

COMPONENT NAME	MAIN (FAN)		18/18
CIRCUIT BOARD NO.		DRAWING NO.	
VEP23591A			
		SCM027	



COMPONENT NAME	PANEL	01/01
CIRCUIT BOARD NO.	VEP20A32A	DRAWING NO.
		SCM028



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SECTION 4

CIRCUIT BOARD DIAGRAMS

NOTE:
DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

CAUTION

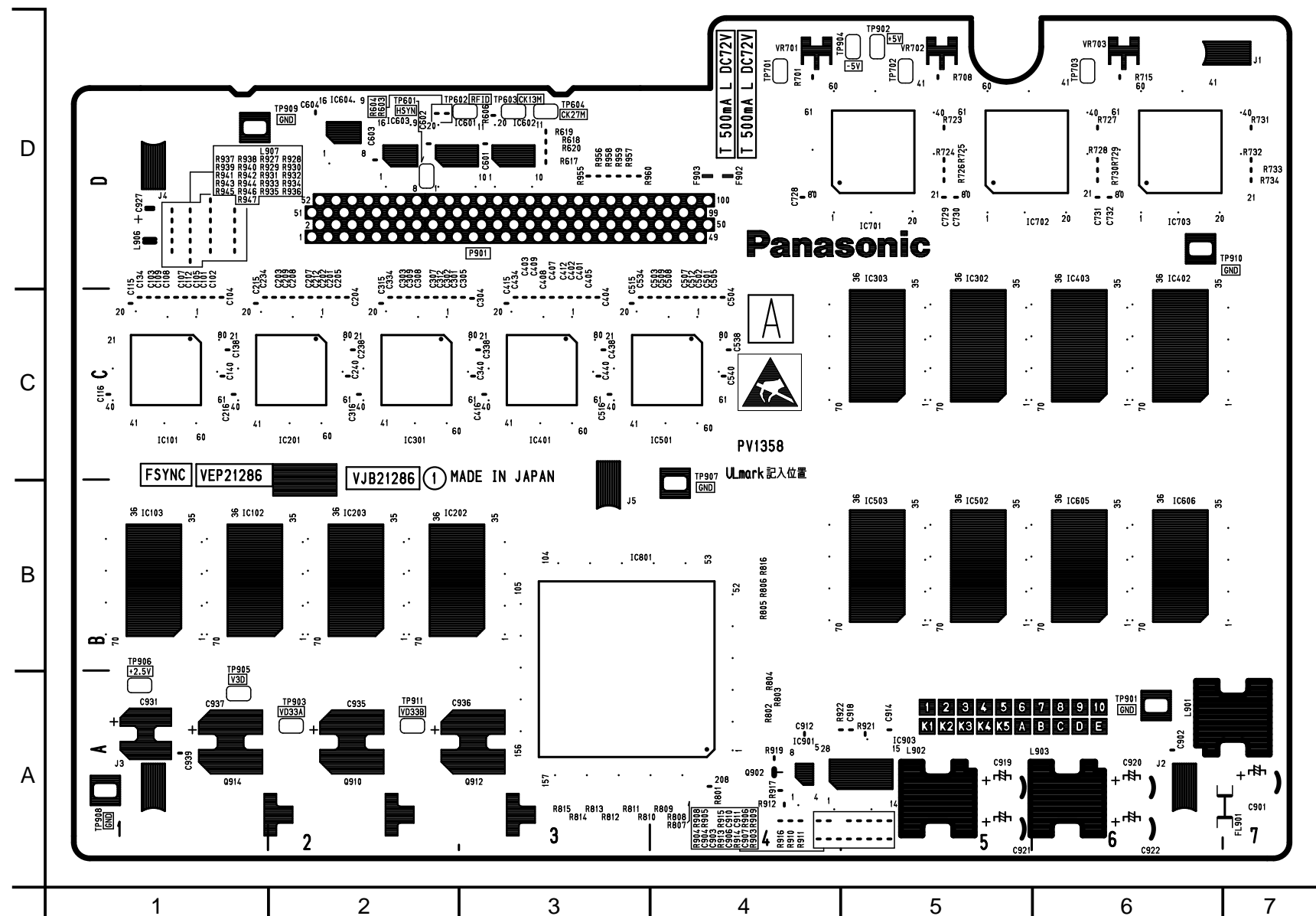
THE  MARK INDICATES THE PRIMARY CIRCUIT TO DISTINGUISH THE PRIMARY FROM THE SECONDARY CIRCUIT.
PAY ATTENTION NOT TO RECEIVE AN ELECTRIC SHOCK DURING REPAIR AND SERVICE OF THE PRODUCTS.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK  HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

CONTENTS

F_SYNC C.B.A. (VEP21286A)	CBA-1
MAIN C.B.A. (VEP23591A).....	CBA-3
PANEL C.B.A. (VEP20A32A)	CBA-5
BNC C.B.A. (VEP23592A)	CBA-7
S_CONT C.B.A. (VEP23594A)	CBA-8

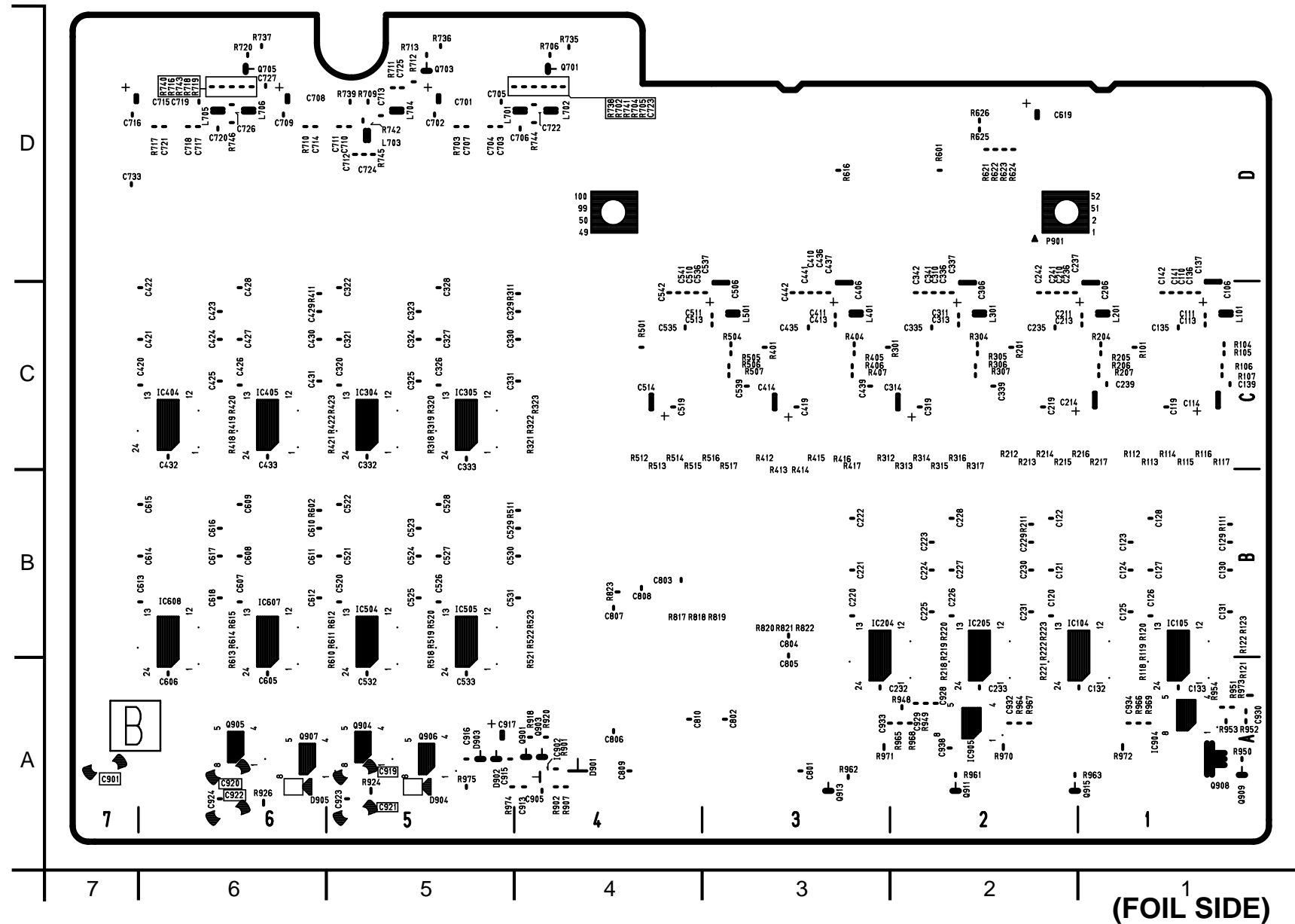
F_SYNC C.B.A (VEP21286A)



F_SYNC C.B.A INTEGRATED CIRCUIT	
IC101	C-1
IC102	B-1
IC103	B-1
IC201	C-2
IC202	B-2
IC203	B-2
IC301	C-2
IC302	C-5
IC303	C-5
IC401	C-3
IC402	C-6
IC403	C-6
IC501	C-4
IC502	B-5
IC503	B-5
IC601	D-3
IC602	D-3
IC603	D-2
IC604	D-2
IC605	B-6
IC606	B-6
IC701	D-5
IC702	D-5
IC703	D-6
IC801	B-3
IC901	A-4
IC903	A-5
CONNECTOR	
P901	D-3
TRANSISTOR	
Q902	A-4
Q910	A-2
Q912	A-3
Q914	A-2
TEST POINT	
TP601	D-2
TP602	D-3
TP603	D-3
TP604	D-3
TP701	D-4
TP702	D-5
TP703	D-6
TP901	A-6
TP902	D-5
TP903	A-2
TP904	D-5
TP905	A-1
TP906	A-1
TP907	B-4
TP908	A-1
TP909	D-1
TP910	D-6
TP911	A-2
ADJUSTMENT	
VR701	D-4
VR702	D-5
VR703	D-6

(COMPONENT SIDE)

F_SYNC C.B.A (VEP21286A)



F_SYNC C.B.A	
INTEGRATED CIRCUIT	
IC104	B-1
IC105	B-1
IC204	B-3
IC205	B-2
IC304	C-5
IC305	C-5
IC404	C-6
IC405	C-6
IC504	B-5
IC505	B-5
IC607	B-6
IC608	B-6
IC902	A-4
IC904	A-1
IC905	A-2
TRANSISTOR	
Q701	D-4
Q703	D-5
Q705	D-6
Q901	A-4
Q903	A-4
Q904	A-5
Q905	A-6
Q906	A-5
Q907	A-6
Q908	A-1
Q909	A-1
Q911	A-2
Q913	A-3
Q915	A-2

MAIN C.B.A		Q30	C-3
INTEGRATED CIRCUIT			
IC1	A-4	Q33	B-2
IC3	B-5	Q35	C-2
IC4	A-7	Q36	B-2
IC5	B-6	Q40	B-3
IC6	A-6	Q41	B-1
IC7	C-3	Q42	A-1
IC8	B-2	Q43	B-1
IC10	B-2	Q45	E-4
IC11	B-3	Q46	E-3
IC14	B-2	Q47	F-3
IC15	B-2	Q48	E-3
IC16	B-2	Q49	E-3
IC17	B-2	Q55	E-1
IC19	C-4	Q56	E-2
IC22	B-1	Q57	F-2
IC22	B-4	Q58	E-2
IC27	A-2	Q59	E-3
IC28	A-2	Q60	E-3
IC29	A-2	Q64	D-1
IC30	A-2	Q65	D-2
IC31	A-2	Q66	D-3
IC32	A-2	Q68	E-1
IC33	A-1	Q69	E-2
IC34	A-1	Q70	E-2
IC35	D-3	Q71	E-2
IC36	D-3	Q74	D-2
IC38	D-2	Q75	D-2
IC39	D-1	Q78	D-1
IC40	D-1	Q79	D-1
IC41	D-2	Q80	D-1
IC42	C-1	Q81	C-1
IC43	C-1	Q82	C-1
IC44	C-1	Q83	C-1
IC45	C-2	Q84	C-1
IC46	D-2	Q85	C-1
IC47	C-2	Q86	C-1
IC48	C-2	Q87	C-1
IC49	C-2	Q88	C-1
IC50	D-2	Q89	C-1
IC51	C-2	Q90	C-1
IC56	A-5	Q91	C-1
IC57	B-5	Q91	C-3
IC59	B-5	Q92	C-1
IC60	C-6	Q94	B-2
IC63	D-6	Q95	C-2
IC64	C-6	Q98	B-3
IC65	D-5	Q99	C-2
IC67	C-5	Q100	C-2
IC68	E-4	Q101	C-2
IC69	E-5	Q103	D-3
IC70	E-5	Q104	C-3
IC71	E-6	Q109	A-4
IC72	E-6	Q124	E-6
IC73	E-7	Q126	E-5
IC74	E-5	Q129	D-3
IC75	E-6	Q130	C-3
IC76	E-6	Q131	C-3
IC77	E-7	Q132	C-3
IC80	C-4	Q134	C-4
IC81	C-4	Q137	C-3
IC83	C-4	Q139	C-3
IC84	C-4	Q140	C-3
IC85	C-4	Q141	C-4
IC86	B-1	Q146	E-4
IC87	B-1	Q147	E-4
IC88	B-1	Q148	E-4
IC89	C-1	Q149	E-4
IC97	D-3	Q150	E-5
IC99	C-1	Q157	A-5
		Q158	A-5
		Q159	A-6
CONNECTOR		Q160	C-2
P1	E-3	Q160	C-2
P2	E-1	Q193	C-4
P3	E-3	Q198	C-3
P4	A-2		
P5	C-6		
		TP6	A-1
P6	D-2	TEST POINT	
P8	D-1	TP2	B-6
P12	A-7	TP3	A-6
		TP7	B-1
		TP8	A-1
TRANSISTOR		TP15	C-4
Q1	B-5	TP17	D-5
Q8	A-6	TP18	D-5
Q17	B-6	TP19	D-5
Q18	A-6	TP23	D-7
Q21	C-2	TP24	E-6
Q22	C-2	TP25	B-3
Q24	C-2	TP26	B-4
Q25	C-2	TP27	B-4
Q26	C-2	TP29	D-1
Q28	C-3		
Q29	C-2		

(COMPONENT SIDE)

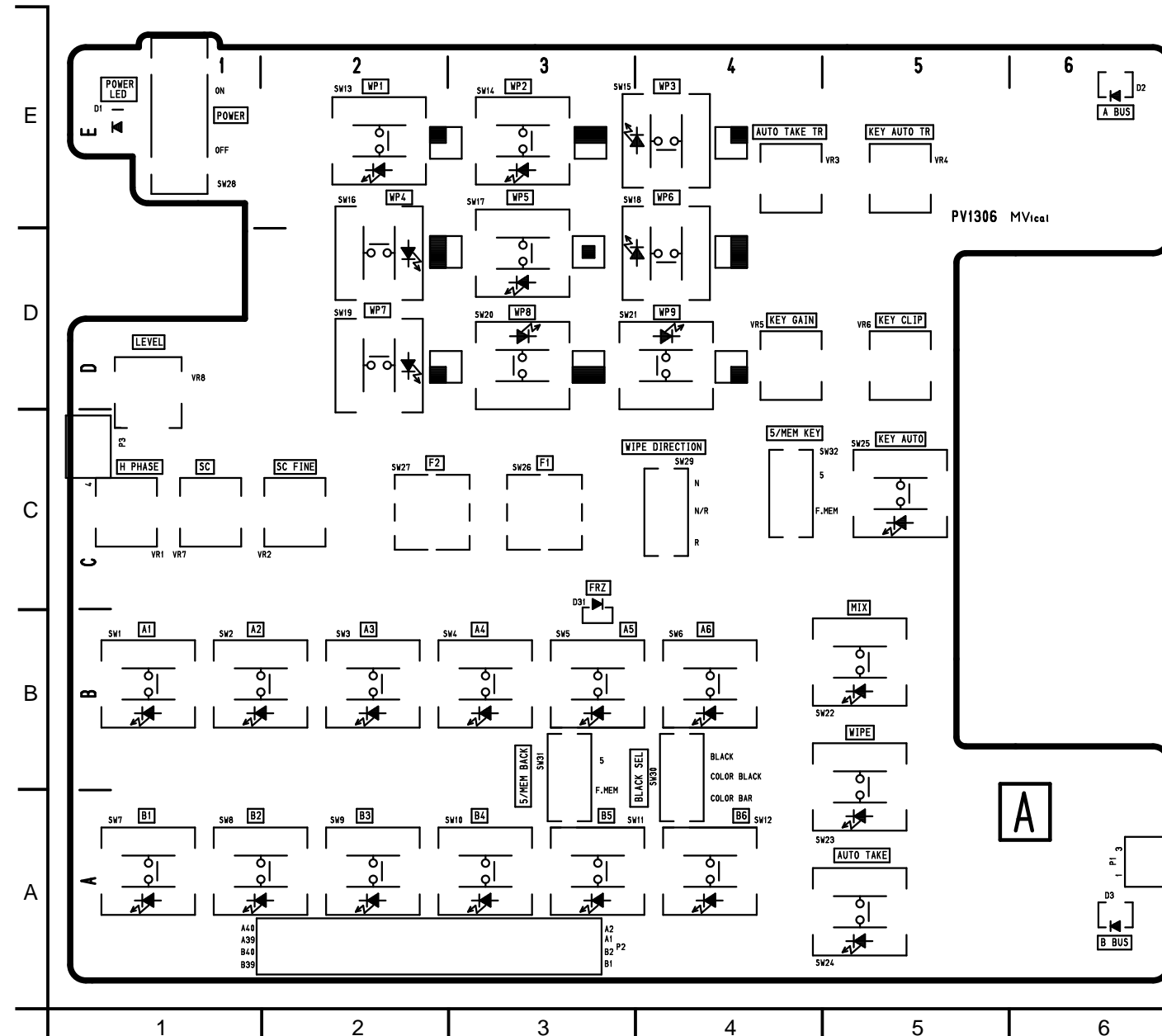
CBA-3

A



(FOIL SIDE)

PANEL C.B.A (VEP20A32A)

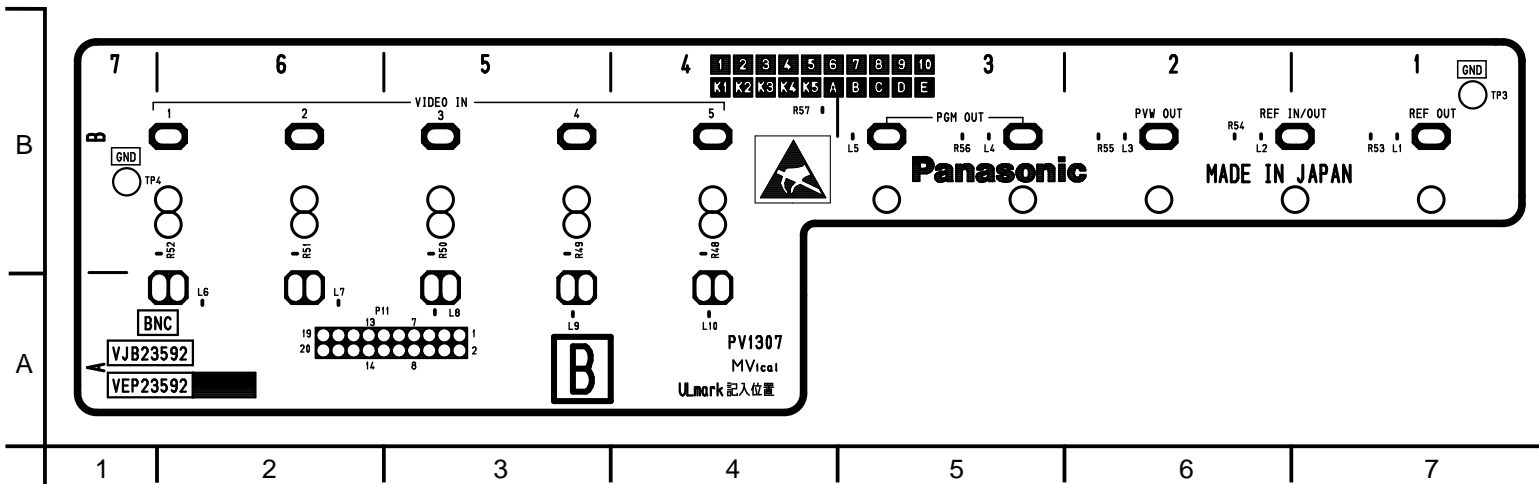


PANEL C.B.A CONNECTOR	
P1	A-6
P2	A-3
P3	C-1
ADJUSTMENT	
VR1	C-1
VR2	C-2
VR3	E-4
VR4	E-5
VR5	D-4
VR6	D-5
VR7	C-1
VR8	D-1

(COMPONENT SIDE)

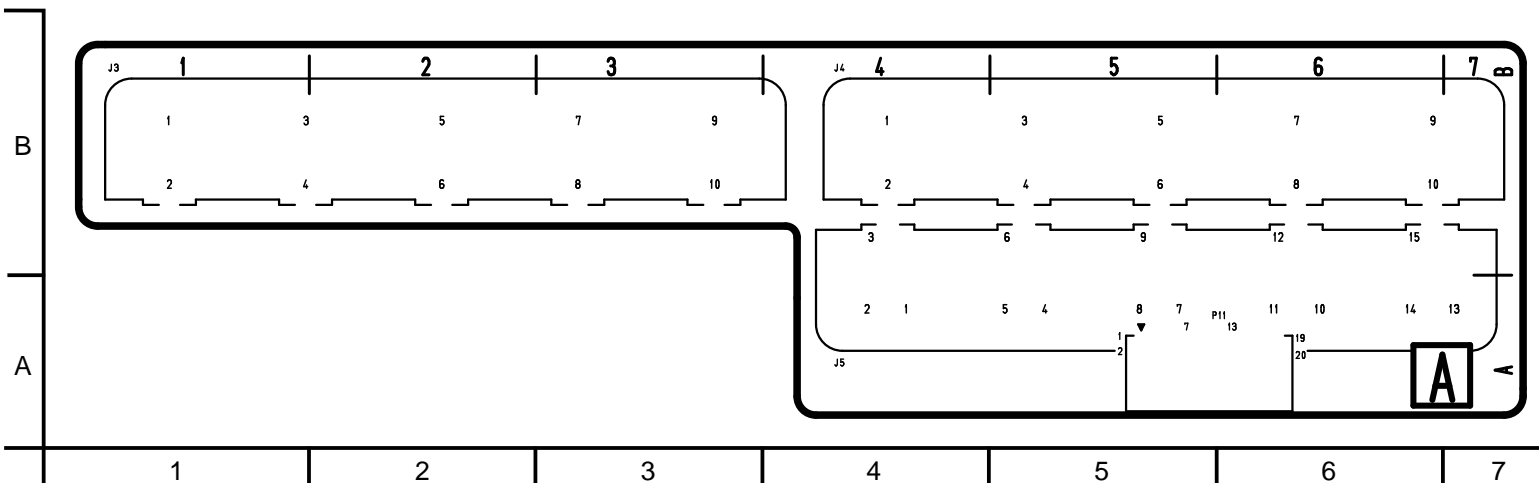
(FOIL SIDE)

BNC C.B.A (VEP23592A)



BNC C.B.A	
Test Point	
TP3	B-1
TP4	B-7

(FOIL SIDE)



BNC C.B.A	
Connector	
P11	A-6

(COMPONENT SIDE)

Diagram of the back of a Panasonic MV1285 camcorder, showing various connectors and components. The diagram is divided into six numbered sections (1-6) corresponding to the labels below.

Section 1: Top edge connectors including a 10-pin connector (K1-K10), a GND terminal, and a TP1 terminal.

Section 2: Right edge connectors including a 4-pin connector (R1-R4) and a TP1 terminal.

Section 3: Bottom edge connectors including a 4-pin connector (R1-R4) and a TP1 terminal.

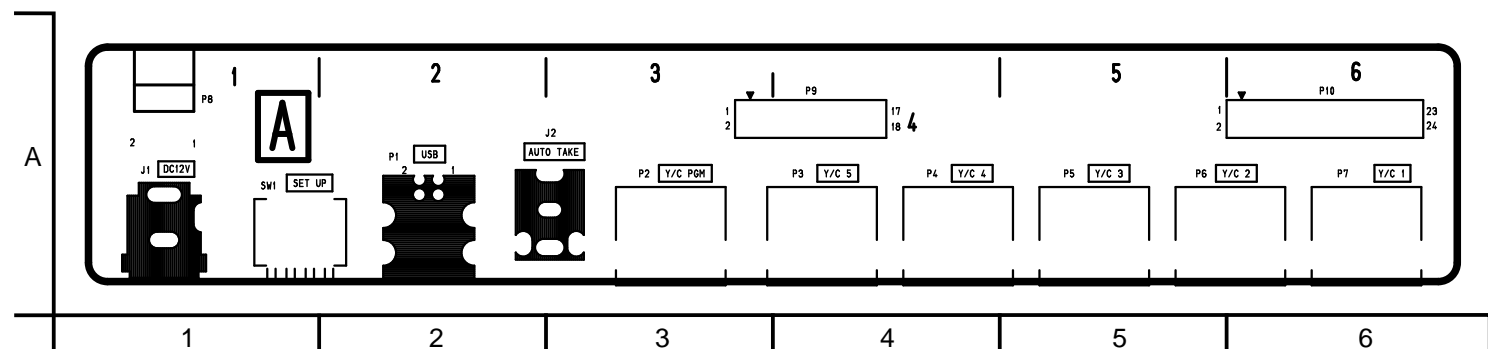
Section 4: Left edge connectors including a 4-pin connector (R1-R4) and a TP1 terminal.

Section 5: Top edge connectors including a 10-pin connector (K1-K10), a GND terminal, and a TP1 terminal.

Section 6: Bottom edge connectors including a 4-pin connector (R1-R4) and a TP1 terminal.

Other components shown include the Panasonic logo, "MADE IN JAPAN", and the model number "MV1285".

(FOIL SIDE)



(COMPONENT SIDE)

SECTION 5

EXPLODED VIEWS & REPLACEMENT PARTS LIST

Note:

1. *Be sure to make your orders of replacement parts according to this list.
2. Unless otherwise specified, all resistors are in OHMS, K=1,000 OHMS, all capacitors are in MICROFARADS (μ F), P= μ μ F.
3. The P.C. Board untils marked with "■" shown below the main assembled parts.
4. The parts marked with \textcircled{E} on the exploded view show the electric parts.
5. IMPORTANT SAFETY NOTICE
Components identified with the mark \triangle have the special characteristics for safety. When replacing any of these components, use only the same type.
6. The marking (RTL) indicates the retention time is limited for this item.
After the diacontinuation of this assembly in production, it will no longer be available.

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PACKING PARTS & ACCESSORIES ASSEMBLY	PRT-3
ELECTRICAL REPLACEMENT PARTS LIST	PRT-4

This exploded view diagram illustrates the assembly of a multi-layer printed circuit board (PCB) system. The components are organized into several main sections, each labeled with a letter (A, B, C, D, E) and numbered parts (1 through 26, 101 through 111, 102, 103, 104, 107, 108, 109, 110).

- Section A:** Located at the bottom, it shows a base PCB (1) with various components including a connector (2), a component (3), and a component (4). It also includes a component (5) and a component (6).
- Section B:** This section shows a top PCB (21) with a component (22) and a component (23). It also includes a component (24) and a component (25).
- Section C:** This section shows a central PCB (14) with a component (15) and a component (16). It also includes a component (17) and a component (18).
- Section D:** This section shows a component (19) and a component (20). It also includes a component (21) and a component (22).
- Section E:** This section shows a component (23) and a component (24). It also includes a component (25) and a component (26).


The diagram uses dashed lines to indicate the assembly sequence and the relative positions of the components. The components are numbered to identify each part, and the letters A through E are used to group related components.

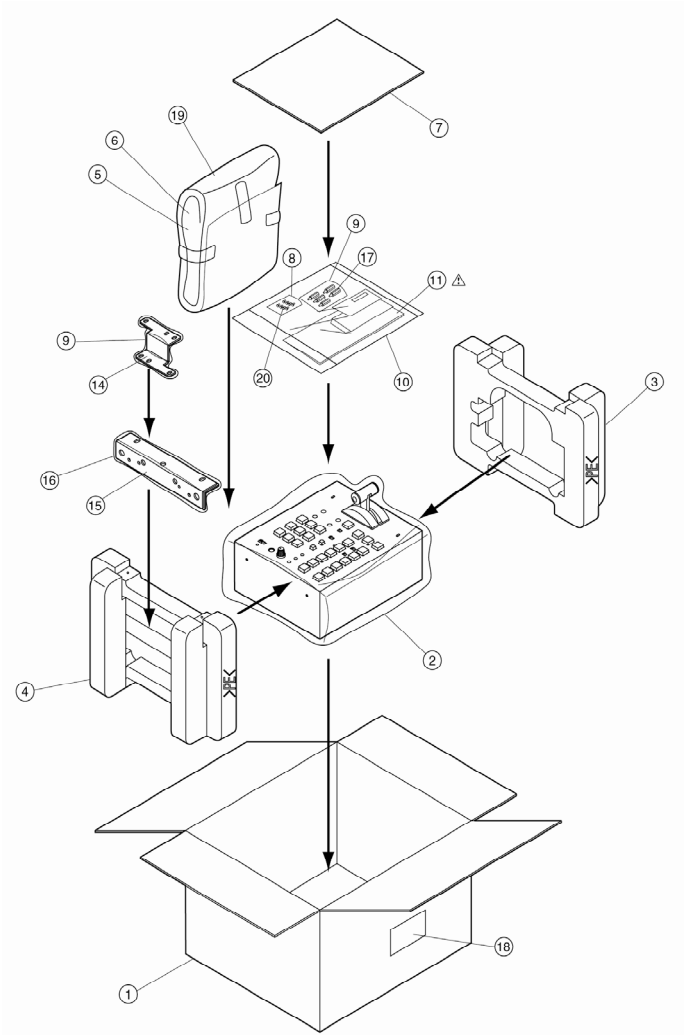
PRT-1

CHASSIS & FRAME ASSEMBLY

[illegible]

PACKING PARTS & ACCESSORIES ASSEMBLY

Components identified with the mark  have the special characteristics for safety. When replacing any of these components, use only the same type.





PACKING PARTS & ACCESSORIES ASSEMBLY

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks	Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
	1	VPG0T86	PACKING CASE	1					
	2	PE35X50C05B	POLYETHYLENE BAG	1					
	3	VPN6039	CUSHION A	1					
	4	VPN6040	CUSHION B	1					
	5	YWT15X20C03	POLYETHYLENE BAG	1					
	6	VXF0184	CD ROM	1					
	7	VPN6060	PAD (UPPER)	1					
	8	YWT050803	POLYETHYLENE BAG	1					
	9	YWT10X16C03	POLYETHYLENE BAG	2					
	10	PE20X35C05B	POLYETHYLENE BAG	1					
	11	VQT0Z92	OPERATING INSTRUCTIONS	1	AW-SW350P				
	11	VQT0Z93	OPERATING INSTRUCTIONS	1	AW-SW350E				
	14	VMA0R31	JOINT ANGLE	1					
	15	A5PA0074A3	LUCK ANGLE	2					
	16	PE20X25C05B	POLYETHYLENE BAG	1					
	17	K1DA06A00005	INCAM PLUG	5					
	18	VQL9823	PACKING LABEL	2					
	19	VPN6055	AIR CAP	1					
	20	XSB4+8FN	SCREW	8					

ELECTRICAL REPLACEMENT PARTS LIST

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks	Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
■ E1	VEP21286A	F SYNC P. C. BOARD	1	(RTL)	C337, 38	ECJ1VB0J225M	C. CAPACITOR CH6. 3V 2. 2U	2	
■ E2	VEP23591A	MAIN P. C. BOARD	1	(RTL)	C339	F1H1A105A004	C. CAPACITOR CH 10V 1U	1	
■ E3	VEP20A32A	PANEL P. C. BOARD	1	(RTL)	C340	ECJ1VB0J225M	C. CAPACITOR CH6. 3V 2. 2U	1	
■ E4	VEP23592A	BNC P. C. BOARD	1	(RTL)	C341	F1H1A105A004	C. CAPACITOR CH 10V 1U	1	
■ E5	VEP23594A	S CONT P. C. BOARD	1	(RTL)	C342	ECJ1VB0J225M	C. CAPACITOR CH6. 3V 2. 2U	1	
					C401-03	F1H1E104A016	C. CAPACITOR CH 25V 0. 1U	3	
					C404	F1H1A105A004	C. CAPACITOR CH 10V 1U	1	
					C405	F1H1E104A016	C. CAPACITOR CH 25V 0. 1U	1	
					C406	F3G1A2260001	T. CAPACITOR CH 10V 22U	1	
					C407	F1H1A105A004	C. CAPACITOR CH 10V 1U	1	
					C408	F1H1E104A016	C. CAPACITOR CH 25V 0. 1U	1	
					C409	F1H1A105A004	C. CAPACITOR CH 10V 1U	1	
					C410	F1H1E104A016	C. CAPACITOR CH 25V 0. 1U	1	
					C411	F1H1A105A004	C. CAPACITOR CH 10V 1U	1	
					C412	ECJ1VB0J225M	C. CAPACITOR CH6. 3V 2. 2U	1	
					C413	F1H1A105A004	C. CAPACITOR CH 10V 1U	1	
					C414	F3G1A2260001	T. CAPACITOR CH 10V 22U	1	
					C415, 16	ECJ1VB0J225M	C. CAPACITOR CH6. 3V 2. 2U	2	
					C419-36	F1H1A105A004	C. CAPACITOR CH 10V 1U	18	
					C437, 38	ECJ1VB0J225M	C. CAPACITOR CH6. 3V 2. 2U	2	
■ E1	VEP21286A	F SYNC P. C. BOARD	1	(RTL)	C439	F1H1A105A004	C. CAPACITOR CH 10V 1U	1	
					C440	ECJ1VB0J225M	C. CAPACITOR CH6. 3V 2. 2U	1	
					C441	F1H1A105A004	C. CAPACITOR CH 10V 1U	1	
					C442	ECJ1VB0J225M	C. CAPACITOR CH6. 3V 2. 2U	1	
C101-03	F1H1E104A016	C. CAPACITOR CH 25V 0. 1U	3		C501-03	F1H1E104A016	C. CAPACITOR CH 25V 0. 1U	3	
C104	F1H1A105A004	C. CAPACITOR CH 10V 1U	1		C504	F1H1A105A004	C. CAPACITOR CH 10V 1U	1	
C105	F1H1E104A016	C. CAPACITOR CH 25V 0. 1U	1		C505	F1H1E104A016	C. CAPACITOR CH 25V 0. 1U	1	
C106	F3G1A2260001	T. CAPACITOR CH 10V 22U	1		C506	F3G1A2260001	T. CAPACITOR CH 10V 22U	1	
C107	F1H1A105A004	C. CAPACITOR CH 10V 1U	1		C507	F1H1A105A004	C. CAPACITOR CH 10V 1U	1	
C108	F1H1E104A016	C. CAPACITOR CH 25V 0. 1U	1		C508	F1H1E104A016	C. CAPACITOR CH 25V 0. 1U	1	
C109	F1H1A105A004	C. CAPACITOR CH 10V 1U	1		C509	F1H1A105A004	C. CAPACITOR CH 10V 1U	1	
C110	F1H1E104A016	C. CAPACITOR CH 25V 0. 1U	1		C510	F1H1E104A016	C. CAPACITOR CH 25V 0. 1U	1	
C111	F1H1A105A004	C. CAPACITOR CH 10V 1U	1		C511	F1H1A105A004	C. CAPACITOR CH 10V 1U	1	
C112	ECJ1VB0J225M	C. CAPACITOR CH6. 3V 2. 2U	1		C512	ECJ1VB0J225M	C. CAPACITOR CH6. 3V 2. 2U	1	
C113	F1H1A105A004	C. CAPACITOR CH 10V 1U	1		C513	F1H1A105A004	C. CAPACITOR CH 10V 1U	1	
C114	F3G1A2260001	T. CAPACITOR CH 10V 22U	1		C514	F3G1A2260001	T. CAPACITOR CH 10V 22U	1	
C115, 16	ECJ1VB0J225M	C. CAPACITOR CH6. 3V 2. 2U	2		C515, 16	ECJ1VB0J225M	C. CAPACITOR CH6. 3V 2. 2U	2	
C119-36	F1H1A105A004	C. CAPACITOR CH 10V 1U	18		C519-36	F1H1A105A004	C. CAPACITOR CH 10V 1U	18	
C137, 38	ECJ1VB0J225M	C. CAPACITOR CH6. 3V 2. 2U	2		C537, 38	ECJ1VB0J225M	C. CAPACITOR CH6. 3V 2. 2U	2	
C139	F1H1A105A004	C. CAPACITOR CH 10V 1U	1		C539	F1H1A105A004	C. CAPACITOR CH 10V 1U	1	
C140	ECJ1VB0J225M	C. CAPACITOR CH6. 3V 2. 2U	1		C540	ECJ1VB0J225M	C. CAPACITOR CH6. 3V 2. 2U	1	
C141	F1H1A105A004	C. CAPACITOR CH 10V 1U	1		C541	F1H1A105A004	C. CAPACITOR CH 10V 1U	1	
C142	ECJ1VB0J225M	C. CAPACITOR CH6. 3V 2. 2U	1		C542	ECJ1VB0J225M	C. CAPACITOR CH6. 3V 2. 2U	1	
C201-03	F1H1E104A016	C. CAPACITOR CH 25V 0. 1U	3		C601-05	ECJ1VB0J225M	C. CAPACITOR CH6. 3V 2. 2U	5	
C204	F1H1A105A004	C. CAPACITOR CH 10V 1U	1		C606-18	F1H1A105A004	C. CAPACITOR CH 10V 1U	13	
C205	F1H1E104A016	C. CAPACITOR CH 25V 0. 1U	1		C619	F3F1A1060001	T. CAPACITOR CH 10V 10U	1	
C206	F3G1A2260001	T. CAPACITOR CH 10V 22U	1		C701	F3F1A1060001	T. CAPACITOR CH 10V 10U	1	
C207	F1H1A105A004	C. CAPACITOR CH 10V 1U	1		C702-04	F1H1E104A016	C. CAPACITOR CH 25V 0. 1U	3	
C208	F1H1E104A016	C. CAPACITOR CH 25V 0. 1U	1		C705	F1H1H180A231	C. CAPACITOR CH 50V 18P	1	
C209	F1H1A105A004	C. CAPACITOR CH 10V 1U	1		C706	F1H1H560A231	C. CAPACITOR CH 50V 56P	1	
C210	F1H1E104A016	C. CAPACITOR CH 25V 0. 1U	1		C707	F1H1E104A016	C. CAPACITOR CH 25V 0. 1U	1	
C211	F1H1A105A004	C. CAPACITOR CH 10V 1U	1		C708	F3F1A1060001	T. CAPACITOR CH 10V 10U	1	
C212	ECJ1VB0J225M	C. CAPACITOR CH6. 3V 2. 2U	1		C709-11	F1H1E104A016	C. CAPACITOR CH 25V 0. 1U	3	
C213	F1H1A105A004	C. CAPACITOR CH 10V 1U	1		C712	F1H1H180A231	C. CAPACITOR CH 50V 18P	1	
C214	F3G1A2260001	T. CAPACITOR CH 10V 22U	1		C713	F1H1H560A231	C. CAPACITOR CH 50V 56P	1	
C215, 16	ECJ1VB0J225M	C. CAPACITOR CH6. 3V 2. 2U	2		C714	F1H1E104A016	C. CAPACITOR CH 25V 0. 1U	1	
C219-36	F1H1A105A004	C. CAPACITOR CH 10V 1U	18		C715	F3F1A1060001	T. CAPACITOR CH 10V 10U	1	
C237, 38	ECJ1VB0J225M	C. CAPACITOR CH6. 3V 2. 2U	2		C716-18	F1H1E104A016	C. CAPACITOR CH 25V 0. 1U	3	
C239	F1H1A105A004	C. CAPACITOR CH 10V 1U	1		C719	F1H1H180A231	C. CAPACITOR CH 50V 18P	1	
C240	ECJ1VB0J225M	C. CAPACITOR CH6. 3V 2. 2U	1		C720	F1H1H560A231	C. CAPACITOR CH 50V 56P	1	
C241	F1H1A105A004	C. CAPACITOR CH 10V 1U	1		C721	F1H1E104A016	C. CAPACITOR CH 25V 0. 1U	1	
C242	ECJ1VB0J225M	C. CAPACITOR CH6. 3V 2. 2U	1		C722	F1H1H150A231	C. CAPACITOR CH 50V 15P	1	
C301-03	F1H1E104A016	C. CAPACITOR CH 25V 0. 1U	3		C723	F1H1H220A231	C. CAPACITOR CH 50V 22U	1	
C304	F1H1A105A004	C. CAPACITOR CH 10V 1U	1		C724	F1H1H150A231	C. CAPACITOR CH 50V 15P	1	
C305	F1H1E104A016	C. CAPACITOR CH 25V 0. 1U	1		C725	F1H1H220A231	C. CAPACITOR CH 50V 22U	1	
C306	F3G1A2260001	T. CAPACITOR CH 10V 22U	1		C726	F1H1H150A231	C. CAPACITOR CH 50V 15P	1	
C307	F1H1A105A004	C. CAPACITOR CH 10V 1U	1		C727	F1H1H220A231	C. CAPACITOR CH 50V 22U	1	
C308	F1H1E104A016	C. CAPACITOR CH 25V 0. 1U	1		C728-33	ECJ1VB0J225M	C. CAPACITOR CH6. 3V 2. 2U	6	
C309	F1H1A105A004	C. CAPACITOR CH 10V 1U	1		C801-10	F1H1E104A016	C. CAPACITOR CH 25V 0. 1U	10	
C310	F1H1E104A016	C. CAPACITOR CH 25V 0. 1U	1		C901	VCEA1DP220	E. CAPACITOR 20V 22U	1	F2D1D2200003
C311	F1H1A105A004	C. CAPACITOR CH 10V 1U	1		C902	F1H1E104A016	C. CAPACITOR CH 25V 0. 1U	1	
C312	ECJ1VB0J225M	C. CAPACITOR CH6. 3V 2. 2U	1		C903	F1H1H103A199	C. CAPACITOR CH 50V 0. 01U	1	
C313	F1H1A105A004	C. CAPACITOR CH 10V 1U	1		C905	F1H1E104A016	C. CAPACITOR CH 25V 0. 1U	1	
C314	F3G1A2260001	T. CAPACITOR CH 10V 22U	1		C906, 07	F1H1H330A231	C. CAPACITOR CH 50V 33P	2	
C315, 16	ECJ1VB0J225M	C. CAPACITOR CH6. 3V 2. 2U	2		C910, 11	F1H1E1020002	C. CAPACITOR CH 25V 1000P	2	
C319-36	F1H1A105A004	C. CAPACITOR CH 10V 1U	18						


Components identified with the mark  have the special characteristics for safety.
When replacing any of these components, use only the same type.

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C912-16	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	5	
C917	F3H1C4750001	T. CAPACITOR CH 16V 4.7U	1	
C918	F1H1A2240001	C. CAPACITOR CH 10V 0.22U	1	
C919, 20	VCEA1DAP220	E. CAPACITOR 20V 22U	2	F2D1D2200003
C921, 22	VCEA1CAP330	C. CAPACITOR 16V 33U	2	F2D1C3300002
C923, 24	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	2	
C927	F3F1C1060002	T. CAPACITOR CH 16V 10U	1	
C928	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	1	
C929	F1H1A105A004	C. CAPACITOR CH 10V 1U	1	
C930	F1H1E1020002	C. CAPACITOR CH 25V 1000P	1	
C931	F2H0J3310003	E. CAPACITOR 6.3V 330U	1	
C932-34	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	3	F1H1H103A219
C935-37	F2H1A4710001	E. CAPACITOR 10V 470U	3	
C938, 39	ECJ1VB0J225M	C. CAPACITOR CH6.3V 2.2U	2	
D901	MA3062M	DIODE	1	
D902, 03	MA142WK	DIODE	2	
D904, 05	BOJCMEO00014	DIODE	2	
 F902, 03	K5H501300006	FUSE	2	
FL901	F1Z1H4720003	FILTER	1	
IC101	C1AB00001754	IC	1	
IC102, 03	C3HBKZ000001	IC	2	
IC104, 05	COJBAZ001983	IC	2	
IC201	C1AB00001754	IC	1	
IC202, 03	C3HBKZ000001	IC	2	
IC204, 05	COJBAZ001983	IC	2	
IC301	C1AB00001754	IC	1	
IC302, 03	C3HBKZ000001	IC	2	
IC304, 05	COJBAZ001983	IC	2	
IC401	C1AB00001754	IC	1	
IC402, 03	C3HBKZ000001	IC	2	
IC404, 05	COJBAZ001983	IC	2	
IC501	C1AB00001754	IC	1	
IC502, 03	C3HBKZ000001	IC	2	
IC504, 05	COJBAZ001983	IC	2	
IC601	COJBAF000504	IC	1	
IC602	COJBAZ001632	IC	1	
IC603	COJBAN000210	IC	1	
IC604	COJBAN000211	IC	1	
IC605, 06	C3HBKZ000001	IC	2	
IC607, 08	COJBAZ001983	IC	2	
IC701-03	COZBZ0000504	IC	3	
IC801	EP1K50-208-3	IC	1	C1ZBZ0001794
IC901	COBBBA000024	IC	1	
IC902	COJBAA000002	IC	1	
IC903	CODBAHH00020	IC	1	
IC904, 05	NJM2904M	IC	2	
J1-J5	VJR1095	LUG TERMINAL	5	
L101	VLQ0163J2R7	COIL 2.7UH	1	G1C2R7J00002
L201	VLQ0163J2R7	COIL 2.7UH	1	G1C2R7J00002
L301	VLQ0163J2R7	COIL 2.7UH	1	G1C2R7J00002
L401	VLQ0163J2R7	COIL 2.7UH	1	G1C2R7J00002
L501	VLQ0163J2R7	COIL 2.7UH	1	G1C2R7J00002
L701	G1C8R2J00002	COIL 8.2UH	1	
L702	G1C100J00001	COIL 10UH	1	
L703	G1C8R2J00002	COIL 8.2UH	1	
L704	G1C100J00001	COIL 10UH	1	
L705	G1C8R2J00002	COIL 8.2UH	1	
L706	G1C100J00001	COIL 10UH	1	
L901-03	VLQ0859M150	COIL 15UH	3	
L906	VLQ0163J4R7	COIL 4.7UH	1	G1C4R7J00004
L907	JOJBC0000005	FILTER	1	
P901	K1KAA0A00086	CONNECTOR (MALE)	1	
Q701	2SB1218ALL	TRANSISTOR	1	
Q703	2SB1218ALL	TRANSISTOR	1	
Q705	2SB1218ALL	TRANSISTOR	1	
Q901-03	2SD1819A-R	TRANSISTOR	3	
Q904-07	B1DFGD000016	TRANSISTOR	4	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
Q908	B1BCGC000001	TRANSISTOR	1	
Q909	2SD1819A-R	TRANSISTOR	1	
Q910	2SB936A-Q	TRANSISTOR	1	
Q911	2SD1819A-R	TRANSISTOR	1	
Q912	2SB936A-Q	TRANSISTOR	1	
Q913	2SD1819A-R	TRANSISTOR	1	
Q914	2SB936A-Q	TRANSISTOR	1	
Q915	2SD1819A-R	TRANSISTOR	1	
R101	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R104-07	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	4	
R111	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R112-23	D1H810140003	COMBI. R-R 100	12	
R201	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R204-07	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	4	
R211	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R212-23	D1H810140003	COMBI. R-R 100	12	
R301	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R304-07	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	4	
R311	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R312-23	D1H810140003	COMBI. R-R 100	12	
R401	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R404-07	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	4	
R411	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R412-23	D1H810140003	COMBI. R-R 100	12	
R501	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R504-07	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	4	
R511	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R512-23	D1H810140003	COMBI. R-R 100	12	
R601, 02	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	2	
R603, 04	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	2	
R606	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R610-15	D1H810140003	COMBI. R-R 100	6	
R616-20	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	5	
R621-24	ERJ3GEYJ330	M. RESISTOR CH 1/16W 33	4	
R625, 26	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	2	
R702	ERJ3RBD331	M. RESISTOR CH 1/16W 330	1	
R703	ERJ3RBD122	M. RESISTOR CH 1/16W 1.2K	1	
R704	ERJ3RBD242	M. RESISTOR CH 1/16W 2.4K	1	
R705	ERJ3GEYJ391	M. RESISTOR CH 1/16W 390	1	
R706	ERJ3GEYG472	M. RESISTOR CH 1/16W 4.7K	1	
R709	ERJ3RBD331	M. RESISTOR CH 1/16W 330	1	
R710	ERJ3RBD122	M. RESISTOR CH 1/16W 1.2K	1	
R711	ERJ3RBD242	M. RESISTOR CH 1/16W 2.4K	1	
R712	ERJ3GEYJ391	M. RESISTOR CH 1/16W 390	1	
R713	ERJ3GEYG472	M. RESISTOR CH 1/16W 4.7K	1	
R715	ERJ3RBD122	M. RESISTOR CH 1/16W 1.2K	1	
R716	ERJ3RBD331	M. RESISTOR CH 1/16W 330	1	
R717	ERJ3RBD122	M. RESISTOR CH 1/16W 1.2K	1	
R718	ERJ3RBD242	M. RESISTOR CH 1/16W 2.4K	1	
R719	ERJ3GEYJ391	M. RESISTOR CH 1/16W 390	1	
R720	ERJ3GEYG472	M. RESISTOR CH 1/16W 4.7K	1	
R723-34	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	12	
R735-37	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	3	
R738-40	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	3	
R741-43	ERJ3RBD151	M. RESISTOR CH 1/16W 150	3	
R744-46	ERJ3GEYJ390	M. RESISTOR CH 1/16W 39	3	
R801	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R802-22	D1H810140003	COMBI. R-R 100	21	
R823	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	1	
R902	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R903, 04	ERJ3RBD203	M. RESISTOR CH 1/16W 20K	2	
R905, 06	ERJ3RBD623	M. RESISTOR CH 1/16W 62K	2	
R907	ERJ3GEYJ912	M. RESISTOR CH 1/16W 9.1K	1	
R908, 09	ERJ3RBD153	M. RESISTOR CH 1/16W 15K	2	
R910	ERJ3GEYJ203	M. RESISTOR CH 1/16W 20K	1	
R911, 12	ERJ3GEYJ623	M. RESISTOR CH 1/16W 62K	2	
R913, 14	ERJ3GEYJ153	M. RESISTOR CH 1/16W 15K	2	
R915-18	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	4	
R919	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	1	
R920	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R921	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	1	
R922	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R924	ERJ6GEYOR00	M. RESISTOR CH 1/10W 0	1	
R926	ERJ6GEYOR00	M. RESISTOR CH 1/10W 0	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R927-36	ERJ3RBD202	M. RESISTOR CH 1/16W 2K	10	
R937	ERJ3RBD751	M. RESISTOR CH 1/16W 750	1	
R938-46	ERJ3RBD102	M. RESISTOR CH 1/16W 1K	9	
R947	ERJ3RBD202	M. RESISTOR CH 1/16W 2K	1	
R948, 49	ERJ3RBD103	M. RESISTOR CH 1/16W 10K	2	
R950	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R952	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R953	ERJ3RBD562	M. RESISTOR CH 1/16W 5.6K	1	
R954	ERJ3RBD103	M. RESISTOR CH 1/16W 10K	1	
R955-60	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	6	
R961-63	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	3	
R964-69	ERJ3RBD103	M. RESISTOR CH 1/16W 10K	6	
R970-73	ERJ6GEYOR00	M. RESISTOR CH 1/10W 0	4	
TP601-04	DOYDR0000011	M. RESISTOR CH 1/8W 0	4	
TP701-03	DOYDR0000011	M. RESISTOR CH 1/8W 0	3	
TP901-11	DOYDR0000011	M. RESISTOR CH 1/8W 0	11	
VR701, 02	D3EC42020003	V. RESISTOR 2K	2	
■ E2	VEP23591A	MAIN P. C. BOARD	1 (RTL)	
C1-10	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	10	
C11	F2D1D1010003	E. CAPACITOR 20V 100U	1	
C12	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	1	
C13	F2D1D1010003	E. CAPACITOR 20V 100U	1	
C14	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	1	
C15	F3G1D6850001	T. CAPACITOR CH 20V 6.8U	1	
C16	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	1	
C17	F3F1A225A003	T. CAPACITOR CH 10V 2.2U	1	
C18	F1H1H151A231	C. CAPACITOR CH 50V 150P	1	
C19	ECUX1H821JCV	C. CAPACITOR CH 50V 820P	1	
C20, 21	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	2	
C22	F1H1E1020002	C. CAPACITOR CH 25V 1000P	1	
C23	EEFCDOJ470R	E. CAPACITOR 6.3V 47U	1	
C24, 25	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	2	
C26	F3F1A225A003	T. CAPACITOR CH 10V 2.2U	1	
C27	F2H0J3310003	E. CAPACITOR 6.3V 330U	1	
C28	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	1	
C29	F1H1H103A199	C. CAPACITOR CH 50V 0.01U	1	
C30	F1H1A105A004	C. CAPACITOR CH 10V 1U	1	
C31	EEFCDOJ470R	E. CAPACITOR 6.3V 47U	1	
C32	F1H1E1020002	C. CAPACITOR CH 25V 1000P	1	
C33-35	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	3	
C36	F2D1D4700002	E. CAPACITOR 20V 47U	1	
C37-39	F1H1A105A004	C. CAPACITOR CH 10V 1U	3	
C40, 41	F1H1H103A190	C. CAPACITOR CH 50V 0.01U	2	
C42	F2H1A4710001	E. CAPACITOR 10V 470U	1	
C43	F2H0J3310003	E. CAPACITOR 6.3V 330U	1	
C44	F1H1E1020002	C. CAPACITOR CH 25V 1000P	1	
C45	F2H0J3310003	E. CAPACITOR 6.3V 330U	1	
C46	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	1	
C47	F3F1C1060002	T. CAPACITOR CH 16V 10U	1	
C48	F1H1H471A004	C. CAPACITOR CH 50V 47P	1	
C49	F1H1H2R0A260	C. CAPACITOR CH 50V 2P	1	
C50	F1H1H390A231	C. CAPACITOR CH 50V 39P	1	
C51	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	1	
C52	F3H1A1070001	T. CAPACITOR CH 10V 100U	1	
C53	F3F1C1060002	T. CAPACITOR CH 16V 10U	1	
C54	F1H1A105A004	C. CAPACITOR CH 10V 1U	1	
C55-57	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	3	
C58-60	F3F1C1060002	T. CAPACITOR CH 16V 10U	3	
C61, 62	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	2	
C63	F3F1C1060002	T. CAPACITOR CH 16V 10U	1	
C64	F1H1H471A004	C. CAPACITOR CH 50V 470P	1	
C65	F1H1H2R0A260	C. CAPACITOR CH 50V 2P	1	
C66	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	1	
C67	F3H1A1070001	T. CAPACITOR CH 10V 100U	1	
C68	F3F1C1060002	T. CAPACITOR CH 16V 10U	1	
C69	F1H1A105A004	C. CAPACITOR CH 10V 1U	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C70-72	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	3	
C73, 74	F3F1C1060002	T. CAPACITOR CH 16V 10U	2	
C75	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	1	
C76	F3F1C1060002	T. CAPACITOR CH 16V 10U	1	
C77	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	1	
C78	F3F1C1060002	T. CAPACITOR CH 16V 10U	1	
C79, 80	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	2	
C83-86	F1H1H101A231	C. CAPACITOR CH 50V 100P	4	
C88	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	1	
C90	F1H1H103A013	C. CAPACITOR CH 50V 0.01U	1	
C91	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	1	
C92	F1H1A105A004	C. CAPACITOR CH 10V 1U	1	
C93	F3F1C1060002	T. CAPACITOR CH 16V 10U	1	
C94	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	1	
C95	F3F1C1060002	T. CAPACITOR CH 16V 10U	1	
C96, 97	F1H1H221A231	C. CAPACITOR CH 50V 220P	2	
C98	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	1	
C99, 00	F1H1H560A231	C. CAPACITOR CH 50V 56P	2	
C101, 02	F1H1H151A231	C. CAPACITOR CH 50V 150P	2	
C103, 04	F1H1H180A231	C. CAPACITOR CH 50V 18P	2	
C105-08	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	4	
C109	F3H1C4750001	T. CAPACITOR CH 16V 4.7U	1	
C110	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	1	
C111	F1H1H220A231	C. CAPACITOR CH 50V 22U	1	
C112	F3F1C1060002	T. CAPACITOR CH 16V 10U	1	
C113, 14	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	2	
C116, 17	F3F1C1060002	T. CAPACITOR CH 16V 10U	2	
C118	F1H1H220A231	C. CAPACITOR CH 50V 22U	1	
C119	F1H1H101A231	C. CAPACITOR CH 50V 100P	1	
C120	F3F1C1060002	T. CAPACITOR CH 16V 10U	1	
C121	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	1	
C122	F1H1H103A199	C. CAPACITOR CH 50V 0.01U	1	
C123, 24	F1H1H101A231	C. CAPACITOR CH 50V 100P	2	
C125	F3F1C1060002	T. CAPACITOR CH 16V 10U	1	
C126	F1H1H220A231	C. CAPACITOR CH 50V 22U	1	
C127	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	1	
C128-31	F3F1C1060002	T. CAPACITOR CH 16V 10U	4	
C132	F1H1A105A004	C. CAPACITOR CH 10V 1U	1	
C133	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	1	
C134	F1H1H472A190	C. CAPACITOR CH 50V 4700P	1	
C139	F1H1A105A004	C. CAPACITOR CH 10V 1U	1	
C140	F3F1V154A003	T. CAPACITOR CH 35V 0.54U	1	
C141, 42	F1H1H221A231	C. CAPACITOR CH 50V 220P	2	
C144	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	1	
C145	F3F1C1060002	T. CAPACITOR CH 16V 10U	1	
C146	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	1	
C147	F3F1C1060002	T. CAPACITOR CH 16V 10U	1	
C148	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	1	
C149	F3F1C1060002	T. CAPACITOR CH 16V 10U	1	
C150, 51	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	2	
C152	F3F1C1060002	T. CAPACITOR CH 16V 10U	1	
C153	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	1	
C154	F3F1C1060002	T. CAPACITOR CH 16V 10U	1	
C155, 56	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	2	
C157-66	F3F1C1060002	T. CAPACITOR CH 16V 10U	10	
C173-75	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	3	
C188, 89	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	2	
C198-03	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	6	
C204-06	F1H1H470A231	C. CAPACITOR CH 50V 47P	3	
C208	F3F1C1060002	T. CAPACITOR CH 16V 10U	1	
C209, 10	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	2	
C211, 12	F3F1C1060002	T. CAPACITOR CH 16V 10U	2	
C213-16	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	4	
C217, 18	F3F1C1060002	T. CAPACITOR CH 16V 10U	2	
C219-22	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	4	
C223, 24	F3F1C1060002	T. CAPACITOR CH 16V 10U	2	
C225, 26	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	2	
C227, 28	F3F1C1060002	T. CAPACITOR CH 16V 10U	2	
C229	F3H1A4760005	T. CAPACITOR CH 10V 47U	1	
C232-35	F1H1H101A231	C. CAPACITOR CH 50V 100P	4	
C236	F1H1H300A004	C. CAPACITOR CH 50V 30P	1	
C237	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	1	
C238	F1H1H7R0A226	C. CAPACITOR CH 50V 7P	1	
C239	F3F1C1060002	T. CAPACITOR CH 16V 10U	1	
C240	F1H1H680A231	C. CAPACITOR CH 50V 68P	1	

Components identified with the mark  have the special characteristics for safety.
When replacing any of these components, use only the same type.

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C241	F1H1H390A231	C. CAPACITOR CH 50V 39P	1	
C242	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	1	
C243	F1H1H180A231	C. CAPACITOR CH 50V 18P	1	
C244	F1H1A105A004	C. CAPACITOR CH 10V 1U	1	
C245	F3H1C4760008	T. CAPACITOR CH 16V 47U	1	
C246	F3F1C1060002	T. CAPACITOR CH 16V 10U	1	
C247-50	F1H1H103A199	C. CAPACITOR CH 50V 0.01U	4	
C251, 52	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	2	
C253, 54	F1H1H103A199	C. CAPACITOR CH 50V 0.01U	2	
C255	F3F1C1060002	T. CAPACITOR CH 16V 10U	1	
C256	F1H1H121A231	T. CAPACITOR CH 50V 120U	1	
C257, 58	F1H1H103A199	C. CAPACITOR CH 50V 0.01U	2	
C259	ECUX1H181JCV	C. CAPACITOR CH 16V 180P	1	EGJ1VC1H181J
C260, 61	F1H1H103A199	C. CAPACITOR CH 50V 0.01U	2	
C262, 63	F1H1H300A004	C. CAPACITOR CH 50V 30P	2	
C264, 65	F1H1H390A231	C. CAPACITOR CH 50V 39P	2	
C266, 67	F1H1H180A231	C. CAPACITOR CH 50V 18P	2	
C268-70	F1H1A105A004	C. CAPACITOR CH 10V 1U	3	
C271	F3H1A4760005	T. CAPACITOR CH 10V 47U	1	
C272, 73	F3H1A1070001	T. CAPACITOR CH 10V 100U	2	
C274, 75	F3F1C1060002	T. CAPACITOR CH 16V 10U	2	
C276	F3H1A1070001	T. CAPACITOR CH 10V 100U	1	
C277-81	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	5	
C282	F1H1H220A231	C. CAPACITOR CH 50V 22U	1	
C283	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	1	
C284	SK31C226MRC	T. CAPACITOR CH 16V 22U	1	F3H1C2260004
C285	F1H1H220A231	C. CAPACITOR CH 50V 22U	1	
C287	F3G1V105A005	T. CAPACITOR CH 35V 1U	1	
C288	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	1	
C289	SK31C226MRC	T. CAPACITOR CH 16V 22U	1	F3H1C2260004
C290-95	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	6	
C296	SK31C226MRC	T. CAPACITOR CH 16V 22U	1	F3H1C2260004
C297	F3F1C1060002	T. CAPACITOR CH 16V 10U	1	
C298, 99	F1H1H150A231	C. CAPACITOR CH 50V 15P	2	
C300, 01	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	2	
C302	SK31C226MRC	T. CAPACITOR CH 16V 22U	1	F3H1C2260004
C303	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	1	
C304-23	F3F1C1060002	T. CAPACITOR CH 16V 10U	20	
C324-28	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	5	
C329	F3H1V1560001	T. CAPACITOR CH 35V 15U	1	
C330	F3F1C1060002	T. CAPACITOR CH 16V 10U	1	
C331	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	1	
C332	F1H1E1020002	C. CAPACITOR CH 25V 1000P	1	
C333	F3F1C1060002	T. CAPACITOR CH 16V 10U	1	
C334	F3H1C4760008	T. CAPACITOR CH 16V 47U	1	
C335, 36	F3F1C1060002	T. CAPACITOR CH 16V 10U	2	
C337	F3H1C4760008	T. CAPACITOR CH 16V 47U	1	
C338	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	1	
C343	F3H1V1560001	T. CAPACITOR CH 35V 15U	1	
C345, 46	F3F1C1060002	T. CAPACITOR CH 16V 10U	2	
C347, 48	F1H1H470A231	C. CAPACITOR CH 50V 47P	2	
C355	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	1	
C356-61	F1H1A105A004	C. CAPACITOR CH 10V 1U	6	
C362	F3H1A4760005	T. CAPACITOR CH 10V 47U	1	
C363, 64	F3H1A1070001	T. CAPACITOR CH 10V 100U	2	
C365-67	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	3	
C368	F3F1C1060002	T. CAPACITOR CH 16V 10U	1	
C369	F3H1A4760005	T. CAPACITOR CH 10V 47U	1	
C370, 71	F3H1A1070001	T. CAPACITOR CH 10V 100U	2	
C372, 73	F3F1C1060002	T. CAPACITOR CH 16V 10U	2	
C374, 75	F1H1H470A231	C. CAPACITOR CH 50V 47P	2	
C382	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	1	
C383-85	F1H1A105A004	C. CAPACITOR CH 10V 1U	3	
C386	F3H1A4760005	T. CAPACITOR CH 10V 47U	1	
C387, 88	F3H1A1070001	T. CAPACITOR CH 10V 100U	2	
C389	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	1	
C390-92	F3F1C1060002	T. CAPACITOR CH 16V 10U	3	
C393-95	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	3	
C396	F1H1H270A231	C. CAPACITOR CH 50V 27P	1	
C397	F1H1H680A231	C. CAPACITOR CH 50V 68P	1	
C398	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	1	
C399-04	F1H1A105A004	C. CAPACITOR CH 10V 1U	6	
C405	F3H1A4760005	T. CAPACITOR CH 10V 47U	1	
C406, 07	F3H1A1070001	T. CAPACITOR CH 10V 100U	2	
C408-10	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	3	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C411	F3F1C1060002	T. CAPACITOR CH 16V 10U	1	
C412	F3H1A4760005	T. CAPACITOR CH 10V 47U	1	
C413, 14	F3H1A1070001	T. CAPACITOR CH 10V 100U	2	
C415	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	1	
C416-19	F1H1E1020002	C. CAPACITOR CH 25V 1000P	4	
C420-23	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	4	
C424	F1H1E1020002	C. CAPACITOR CH 25V 1000P	1	
C425-28	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	4	
C430-33	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	4	
C434-36	F1H1A105A004	C. CAPACITOR CH 10V 1U	3	
C437, 38	F3F1C1060002	T. CAPACITOR CH 16V 10U	2	
C439, 40	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	2	
C441	F3F1C1060002	T. CAPACITOR CH 16V 10U	1	
C442, 43	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	2	
C444, 45	F1H1A105A004	C. CAPACITOR CH 10V 1U	2	
C446	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	1	
C447, 48	F1H1A105A004	C. CAPACITOR CH 10V 1U	2	
C449-52	F1H1H180A231	C. CAPACITOR CH 50V 18P	4	
C453	F3F1C1060002	T. CAPACITOR CH 16V 10U	1	
C454	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	1	
C455	F3F1C1060002	T. CAPACITOR CH 16V 10U	1	
C456	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	1	
C457	F1H1H390A231	C. CAPACITOR CH 50V 39P	1	
C458	F3F1C1060002	T. CAPACITOR CH 16V 10U	1	
C459	F3H1C4760008	T. CAPACITOR CH 16V 47U	1	
C461-65	F3G1C2260001	T. CAPACITOR CH 16V 22U	5	
C466-70	F3F1C1060002	T. CAPACITOR CH 16V 10U	5	
D1, D2	MA121	DIODE	2	
D3	LN1251CAL	DIODE	1	
D4, D5	MA3062M	DIODE	2	
D6, D7	BOJCMEO00014	DIODE	2	
D8-11	BOCCAB000015	DIODE	4	
D12	MA3039-H	DIODE	1	
D13, 14	MA153A	DIODE	2	
D15	LN1251CAL	DIODE	1	
D16	MA3039-H	DIODE	1	
D17	MA152WA	DIODE	1	
D18, 19	BOCCAB000015	DIODE	2	
D20-24	MA142K	DIODE	5	
D33-36	BOCCAB000015	DIODE	4	
D37	MA3039-H	DIODE	1	
D38	LN1251CAL	DIODE	1	
D39	MA3062M	DIODE	1	
D40	MA142K	DIODE	1	
D41, 42	MA3039-H	DIODE	2	
△ F1	K5H102300010	FUSE	1	
△ F2	K5H501300006	FUSE	1	
FL1	JOJHA0000001	FILTER	1	
IC1	C3DAKA000005	IC	1	
IC2	C1ZBZ0001794	IC	1	
IC3	COBBBA000024	IC	1	
IC4	COJBAA000076	IC	1	
IC5	CODBAKZ00001	IC	1	
IC6	COABCA000017	IC	1	
IC7	COABBA000075	IC	1	
IC8	NJM4560MD	IC	1	COABBB000116
IC9	COJBAA000002	IC	1	
IC10	NJM4560MD	IC	1	COABBB000116
IC11	COABBA000075	IC	1	
IC12	COJBAA000002	IC	1	
IC13	COFBD000079	IC	1	
IC14, 15	COJBAB000005	IC	2	
IC16, 17	TC7SU04FU	IC	2	
IC20	COABAB000005	IC	1	
IC21	NJM360M	IC	1	COBBZB000001
IC22	C1CB00000435	IC	1	
IC23	C1AB00000234	IC	1	
IC24	COABAB000006	IC	1	
IC25, 26	TC74HC123AF	IC	2	COJBAM000030
IC27, 28	TC7SU04FU	IC	2	
IC29	NJM360M	IC	1	COBBZB000001

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
IC30	COABAB000005	IC	1	
IC31	TC74HC4053AF	IC	1	COJBAR000130
IC32	TC7SU04FU	IC	1	
IC33	COJBAB000005	IC	1	
IC34	COJBAB000180	IC	1	
IC35-37	MAX4312ESE	IC	3	
IC38	T74HCT541AF	IC	1	
IC39, 40	MAX4312ESE	IC	2	
IC41	T74HCT541AF	IC	1	
IC42-44	COJBAA000002	IC	3	
IC45	NJM082BV	IC	1	
IC46, 47	C1AB00001134	IC	2	
IC48, 49	TC4W53FU	IC	2	
IC50, 51	C1AB00001134	IC	2	
IC52, 53	TC7SU04FU	IC	2	
IC56	EL4584CS	IC	1	
IC57	TC9090AF	IC	1	C1AB00000655
IC58	COJBAA000002	IC	1	
IC59	C1AB00000165	IC	1	
IC60	MAX3223CAP	IC	1	COZBZ0000220
IC62	M51957BFP	IC	1	COEBH0000062
IC63	C2CBJ6000319	IC	1	
IC64	COABBA000075	IC	1	
IC65	COJBAN000098	VHC	1	
IC66	C1CB00001342	IC	1	
IC67	C3FBN0000169	IC	1	
IC68-73	COABCA000017	IC	6	
IC74	T74HCT541AF	IC	1	
IC75	COABBA000075	IC	1	
IC76	B1HBGF000001	TRANSISTOR ARRAY	1	
IC77	NJM2073M	IC	1	
IC78	C0CBBF000001	IC	1	
IC80	TC7W53F	IC	1	
IC81	NJM2267V	IC	1	C1AB00000164
IC82, 83	COJBAA000002	IC	2	
IC84	TC7W53F	IC	1	
IC85	NJM2267V	IC	1	
IC86	COZBZ0000504	IC	1	
IC87	NJM2267V	IC	1	
IC88, 89	TC4W53FU	IC	2	
IC90-92	TC74HC123AF	IC	3	COJBAM000030
IC93	COJBAA000078	IC	1	
IC94	COABAB000006	IC	1	
IC95, 96	COJBZA000852	IC	2	
IC97	NJM431U	IC	1	C0DBEZC00003
IC98, 99	COJBAA000002	IC	2	
J1-J9	VJR1095	LUG TERMINAL	9	
J10-14	K1CB106B0032	CONNECTOR (FEMALE)	5	
L1	G1C150M00008	COIL 15UH	1	
L2	G1C220Z00002	COIL 22UH	1	
L4	G1C150M00008	COIL 15UH	1	
L5	VLQ0916N5R3	COIL 5.3UH	1	
L6	VLQ0163J470	COIL 47UH	1	
L7-L9	G1C820J00002	COIL 82UH	3	
L10-12	G1C390J00001	COIL 39UH	3	
L13-15	G1C100J00001	COIL 10UH	3	
L16	JOJBC0000005	FILTER	1	
L18	JOJBC0000005	FILTER	1	
L19	G1C330J00002	COIL 33UH	1	
L20-39	JOJBC0000005	FILTER	20	
L45-49	JOJBC0000005	FILTER	5	
L50-53	G1C390J00001	COIL 39UH	4	
L54	G1C220J00001	COIL 22UH	1	
L55	G1C100J00001	COIL 10UH	1	
L56	VLQ0163J470	COIL 47UH	1	
P1	VJP3440A020	CONNECTOR (MALE)	1	K1KA20A00187
P2	VJP3440A024	CONNECTOR (MALE)	1	K1KA24A00022
P3	VJP3440A018	CONNECTOR (MALE)	1	K1KA18A00016
P4	K1KA80A00018	CONNECTOR (MALE)	1	
P5	VJP2824B002	CONNECTOR (MALE)	1	K1KA02B00007
P6	K1KBAA000099	CONNECTOR (FEMALE)	1	
P7	VJP3125B008	CONNECTOR (MALE)	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
P8	K1FA150A0011	CONNECTOR (MALE)	1	
P9	K1KA07B00037	CONNECTOR (MALE)	1	
P10	K1KA03A00061	CONNECTOR (MALE)	1	
P11	K1KA04B00148	CONNECTOR	1	
P12	VJP1230T	CONNECTOR (MALE) 3P	1	K1KA03A00017
Q1, Q2	2SD1819A-R	TRANSISTOR	2	
Q3	2SB1219A	TRANSISTOR	1	
Q4	2SD1819A-R	TRANSISTOR	1	
Q5	2SB1218ALL	TRANSISTOR	1	
Q6	B1DHC0000005	TRANSISTOR	1	
Q7	B1BBDL000004	TRANSISTOR	1	
Q8	2SB1218ALL	TRANSISTOR	1	
Q9	2SD1819A-R	TRANSISTOR	1	
Q10	2SB1219A	TRANSISTOR	1	
Q11, 12	B1DHC0000005	TRANSISTOR	2	
Q13, 14	2SB936A-Q	TRANSISTOR	2	
Q15	B1BCGC000001	TRANSISTOR	1	
Q16-18	2SD1819A-R	TRANSISTOR	3	
Q21	XN0653400L	TRANSISTOR	1	
Q22	XN6435	TRANSISTOR-RESISTOR	1	
Q23	XP4601	TRANSISTOR-RESISTOR	1	
Q25	XN6435	TRANSISTOR-RESISTOR	1	
Q26	XN0653400L	TRANSISTOR	1	
Q27	2SA15320CL	TRANSISTOR	1	
Q28	XN6435	TRANSISTOR-RESISTOR	1	
Q29	2SK662-R	TRANSISTOR	1	
Q31	2SD1819A-R	TRANSISTOR	1	
Q32	XN0653400L	TRANSISTOR	1	
Q33	XN6435	TRANSISTOR-RESISTOR	1	
Q34	XP4601	TRANSISTOR-RESISTOR	1	
Q36	XN6435	TRANSISTOR-RESISTOR	1	
Q37	2SA15320CL	TRANSISTOR	1	
Q38	XN6435	TRANSISTOR-RESISTOR	1	
Q39	2SK662-R	TRANSISTOR	1	
Q40	2SD1819A-R	TRANSISTOR	1	
Q41-43	XN0653400L	TRANSISTOR	3	
Q44	2SA15320CL	TRANSISTOR	1	
Q45-49	XN0653400L	TRANSISTOR	5	
Q50-54	2SD1819A-R	TRANSISTOR	5	
Q55-60	XN0653400L	TRANSISTOR	6	
Q61-66	2SD1819A-R	TRANSISTOR	6	
Q68-71	XN0653400L	TRANSISTOR	4	
Q72-75	2SD1819A-R	TRANSISTOR	4	
Q78-80	2SD1819A-R	TRANSISTOR	3	
Q81-83	2SK662-R	TRANSISTOR	3	
Q84-86	2SB1218ALL	TRANSISTOR	3	
Q87-89	2SD1819A-R	TRANSISTOR	3	
Q93, 94	2SD1819A-R	TRANSISTOR	2	
Q95	XP4601	TRANSISTOR-RESISTOR	1	
Q96, 97	2SB1218ALL	TRANSISTOR	2	
Q98-00	2SD1819A-R	TRANSISTOR	3	
Q101	2SB1218ALL	TRANSISTOR	1	
Q102	2SD1819A-R	TRANSISTOR	1	
Q103, 04	XP4601	TRANSISTOR-RESISTOR	2	
Q107-22	2SD1819A-R	TRANSISTOR	16	
Q123	2SD0874AHL	TRANSISTOR	1	
Q124	2SD1819A-R	TRANSISTOR	1	
Q125	B1DHC0000005	TRANSISTOR	1	
Q126	2SD1819A-R	TRANSISTOR	1	
Q127, 28	2SC39310YL	TRANSISTOR	2	
Q129, 30	XP4601	TRANSISTOR-RESISTOR	2	
Q131, 32	2SK662-R	TRANSISTOR	2	
Q133, 34	2SD1819A-R	TRANSISTOR	2	
Q135, 36	2SC39310YL	TRANSISTOR	2	
Q137, 38	XP4601	TRANSISTOR-RESISTOR	2	
Q139, 40	2SK662-R	TRANSISTOR	2	
Q141	2SD1819A-R	TRANSISTOR	1	
Q142	2SA15320CL	TRANSISTOR	1	
Q143	2SD1819A-R	TRANSISTOR	1	
Q144	2SC39310YL	TRANSISTOR	1	
Q145	2SD1819A-R	TRANSISTOR	1	
Q146-50	XN0653400L	TRANSISTOR	5	
Q151, 52	2SD1819A-R	TRANSISTOR	2	
Q153	2SB936A-Q	TRANSISTOR	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
Q154	2SD1819A-R	TRANSISTOR	1	
Q155-58	2SB1219A	TRANSISTOR	4	
Q159, 60	2SK662-R	TRANSISTOR	2	
R3-R5	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	3	
R8	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R10-18	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	9	
R19-22	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	4	
R23, 24	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	2	
R25, 26	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	2	
R28-37	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	10	
R38	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	1	
R39	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R40-42	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	3	
R44-53	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	10	
R54	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	1	
R55	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R56	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R57	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R58	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	1	
R59	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R60	ERJ3GEYJ912	M. RESISTOR CH 1/16W 9.1K	1	
R61	ERJ3GEYJ203	M. RESISTOR CH 1/16W 20K	1	
R62, 63	ERJ3GEYJ623	M. RESISTOR CH 1/16W 62K	2	
R64	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	1	
R65	ERJ3GEYJ513	M. RESISTOR CH 1/16W 51K	1	
R66	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R67	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	1	
R68	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R69	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	1	
R70-72	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	3	
R73	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R74	ERJ3GEYJ511	M. RESISTOR CH 1/16W 510	1	
R75	ERJ3GEYJ912	M. RESISTOR CH 1/16W 9.1K	1	
R76	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R77	ERJ3GEYJ470	M. RESISTOR CH 1/16W 47	1	
R78	ERJ3RBD433	M. RESISTOR CH 1/16W 43K	1	
R79	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R80	ERJ3RBD103	M. RESISTOR CH 1/16W 10K	1	
R81, 82	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	2	
R83, 84	ERJ3RBD103	M. RESISTOR CH 1/16W 10K	2	
R85	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	1	
R86	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R87	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R88, 89	ERJ3GEYJ470	M. RESISTOR CH 1/16W 47	2	
R90	ERJ6GEYOR00	M. RESISTOR CH 1/10W 0	1	
R91	ERJ3RBD132	M. RESISTOR CH 1/16W 1.3K	1	
R92	ERJ3GEYJ183	M. RESISTOR CH 1/16W 18K	1	
R93	ERJ3RBD222	M. RESISTOR CH 1/16W 2.2K	1	
R94, 95	ERJ3RBD103	M. RESISTOR CH 1/16W 10K	2	
R96	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R97	ERJ3RBD333	M. RESISTOR CH 1/16W 33K	1	
R98-00	ERJ3RBD103	M. RESISTOR CH 1/16W 10K	3	
R102, 03	ERJ3RBD103	M. RESISTOR CH 1/16W 10K	2	
R104-06	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	3	
R108	ERJ3RBD682	M. RESISTOR CH 1/16W 6.8K	1	
R109	ERJ3RBD623	M. RESISTOR CH 1/16W 62K	1	
R110	ERJ3RBD103	M. RESISTOR CH 1/16W 10K	1	
R111	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R112	ERJ3RBD303	M. RESISTOR CH 1/16W 30K	1	
R113	ERJ3RBD103	M. RESISTOR CH 1/16W 10K	1	
R114	ERJ3RBD272	M. RESISTOR CH 1/16W 2.7K	1	
R115	ERJ3RBD393	M. RESISTOR CH 1/16W 39K	1	
R116	ERJ3RBD103	M. RESISTOR CH 1/16W 10K	1	
R117-19	ERJ6GEYOR00	M. RESISTOR CH 1/10W 0	3	
R120	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R121	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	1	
R122	ERJ3GEYG472	M. RESISTOR CH 1/16W 4.7K	1	
R123-25	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	3	
R126	ERJ3GEYJ820	M. RESISTOR CH 1/16W 82	1	
R127	ERJ3GEYG152	M. RESISTOR CH 1/16W 1.5K	1	
R128	ERJ3GEYG472	M. RESISTOR CH 1/16W 4.7K	1	
R130	ERJ3GEYG152	M. RESISTOR CH 1/16W 1.5K	1	
R131	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R132	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R133	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R137	ERJ3GEYJ100	M. RESISTOR CH 1/16W 10	1	
R138	ERJ3RBD221	M. RESISTOR CH 1/16W 220	1	
R139	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R140	ERJ3RBD511	M. RESISTOR CH 1/16W 510	1	
R141	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R142	ERJ3RBD622	M. RESISTOR CH 1/16W 6.2K	1	
R143	ERJ3GEYJ203	M. RESISTOR CH 1/16W 20K	1	
R144	ERJ3RBD103	M. RESISTOR CH 1/16W 10K	1	
R145	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R146	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	1	
R148	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R149	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	1	
R150	ERJ3GEYJ183	M. RESISTOR CH 1/16W 18K	1	
R151	ERJ3GEYG332	M. RESISTOR CH 1/16W 3.3K	1	
R152	ERJ3GEYJ303	M. RESISTOR CH 1/16W 30K	1	
R153	ERJ3GEYG332	M. RESISTOR CH 1/16W 3.3K	1	
R155	ERJ3RBD202	M. RESISTOR CH 1/16W 2K	1	
R156	ERJ3RBD243	M. RESISTOR CH 1/16W 24K	1	
R157	ERJ3RBD182	M. RESISTOR CH 1/16W 1.8K	1	
R158	ERJ3RBD273	M. RESISTOR CH 1/16W 27K	1	
R159	ERJ3GEYJ100	M. RESISTOR CH 1/16W 10	1	
R160	ERJ3RBD103	M. RESISTOR CH 1/16W 10K	1	
R161	ERJ3RBD223	M. RESISTOR CH 1/16W 22K	1	
R162	ERJ3RBD472	M. RESISTOR CH 1/16W 4.7K	1	
R163	ERJ3RBD303	M. RESISTOR CH 1/16W 30K	1	
R164	ERJ3RBD103	M. RESISTOR CH 1/16W 10K	1	
R165, 66	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	2	
R167	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R168	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	1	
R169	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R170	ERJ3GEYG472	M. RESISTOR CH 1/16W 4.7K	1	
R171	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R172	ERJ3GEYJ820	M. RESISTOR CH 1/16W 82	1	
R173	ERJ3GEYG152	M. RESISTOR CH 1/16W 1.5K	1	
R174	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R176	ERJ3GEYG152	M. RESISTOR CH 1/16W 1.5K	1	
R177	ERJ3GEYG472	M. RESISTOR CH 1/16W 4.7K	1	
R178	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R182	ERJ3RBD221	M. RESISTOR CH 1/16W 220	1	
R183	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R184	ERJ3RBD511	M. RESISTOR CH 1/16W 510	1	
R185	ERJ3RBD242	M. RESISTOR CH 1/16W 2.4K	1	
R186	ERJ3RBD103	M. RESISTOR CH 1/16W 10K	1	
R187	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R188	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	1	
R189	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R190	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	1	
R191	ERJ3GEYJ183	M. RESISTOR CH 1/16W 18K	1	
R192	ERJ3GEYG472	M. RESISTOR CH 1/16W 4.7K	1	
R193	ERJ3RBD392	M. RESISTOR CH 1/16W 3.9K	1	
R194	ERJ3RBD303	M. RESISTOR CH 1/16W 30K	1	
R195	ERJ3GEYJ303	M. RESISTOR CH 1/16W 30K	1	
R196	ERJ3GEYG472	M. RESISTOR CH 1/16W 4.7K	1	
R197	ERJ3RBD183	M. RESISTOR CH 1/16W 18K	1	
R198	ERJ3RBD182	M. RESISTOR CH 1/16W 1.8K	1	
R199	ERJ3RBD273	M. RESISTOR CH 1/16W 27K	1	
R200	ERJ3GEYJ100	M. RESISTOR CH 1/16W 10	1	
R202	ERJ3RBD472	M. RESISTOR CH 1/16W 4.7K	1	
R203	ERJ3RBD103	M. RESISTOR CH 1/16W 10K	1	
R206	ERJ3RBD303	M. RESISTOR CH 1/16W 30K	1	
R207	ERJ3RBD103	M. RESISTOR CH 1/16W 10K	1	
R208	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R209	ERJ3RBD513	M. RESISTOR CH 1/16W 51K	1	
R210-15	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	6	
R216, 17	ERJ3GEYJ220	M. RESISTOR CH 1/16W 22	2	
R218, 19	ERJ3GEYJ821	M. RESISTOR CH 1/16W 820	2	
R220, 21	ERJ3GEYJ221	M. RESISTOR CH 1/16W 220	2	
R222, 23	ERJ3GEYJ331	M. RESISTOR CH 1/16W 330	2	
R224	ERJ3GEYJ105	M. RESISTOR CH 1/16W 1M	1	
R225	ERJ3GEYJ564	M. RESISTOR CH 1/16W 560K	1	
R226	ERJ3GEYJ105	M. RESISTOR CH 1/16W 1M	1	
R227-29	ERJ3GEYJ564	M. RESISTOR CH 1/16W 560K	3	
R230	ERJ3GEYJ221	M. RESISTOR CH 1/16W 220	1	
R231	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R232	ERJ3GEYJ223	M. RESISTOR CH 1/16W 22K	1	
R233	ERJ3GEYJ912	M. RESISTOR CH 1/16W 9.1K	1	
R234	ERJ3GEYG682	M. RESISTOR CH 1/16W 6.8K	1	
R235, 36	ERJ3GEYJ223	M. RESISTOR CH 1/16W 22K	2	
R237, 38	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	2	
R239	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R240	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	1	
R241	ERJ3GEYJ203	M. RESISTOR CH 1/16W 20K	1	
R242	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R243	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R244	ERJ3GEYG471	M. RESISTOR CH 1/16W 470	1	
R245	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R246	ERJ3GEYJ331	M. RESISTOR CH 1/16W 330	1	
R247	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R248	ERJ3GEYJ392	M. RESISTOR CH 1/16W 3.9K	1	
R249, 50	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	2	
R252	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	1	
R253	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R255, 56	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	2	
R257	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	1	
R258	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R259	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R260, 61	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	2	
R262	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R263	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	1	
R264	ERJ3GEYJ221	M. RESISTOR CH 1/16W 220	1	
R265	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R266	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	1	
R267	ERJ3GEYJ221	M. RESISTOR CH 1/16W 220	1	
R268	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	1	
R269	ERJ3GEYJ333	M. RESISTOR CH 1/16W 33K	1	
R270	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	1	
R271	ERJ3GEYJ331	M. RESISTOR CH 1/16W 330	1	
R272	ERJ3GEYJ122	M. RESISTOR CH 1/16W 1.2K	1	
R273, 74	ERJ3GEYG152	M. RESISTOR CH 1/16W 1.5K	2	
R275, 76	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	2	
R277	ERJ3GEYJ221	M. RESISTOR CH 1/16W 220	1	
R278	ERJ3GEYJ470	M. RESISTOR CH 1/16W 47	1	
R279	ERJ3GEYJ224	M. RESISTOR CH 1/16W 220K	1	
R280	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	1	
R281	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	1	
R282	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	1	
R283	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	1	
R284	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	1	
R285	ERJ3GEYJ681	M. RESISTOR CH 1/16W 680	1	
R286	ERJ3GEYJ223	M. RESISTOR CH 1/16W 22K	1	
R287	ERJ3GEYJ563	M. RESISTOR CH 1/16W 56K	1	
R289	ERJ3RBD103	M. RESISTOR CH 1/16W 10K	1	
R290	ERJ3RBD223	M. RESISTOR CH 1/16W 22K	1	
R291	ERJ3RBD222	M. RESISTOR CH 1/16W 2.2K	1	
R292	ERJ3RBD751	M. RESISTOR CH 1/16W 750	1	
R293	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	1	
R294	ERJ3RBD221	M. RESISTOR CH 1/16W 220	1	
R295	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R296	ERJ3RBD332	M. RESISTOR CH 1/16W 3.3K	1	
R297	ERJ3GEYJ912	M. RESISTOR CH 1/16W 9.1K	1	
R298	ERJ3RBD392	M. RESISTOR CH 1/16W 3.9K	1	
R299	ERJ3GEYJ221	M. RESISTOR CH 1/16W 220	1	
R300, 01	ERJ3GEYG472	M. RESISTOR CH 1/16W 4.7K	2	
R302	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R303	ERJ3GEYG472	M. RESISTOR CH 1/16W 4.7K	1	
R304	ERJ3GEYJ221	M. RESISTOR CH 1/16W 220	1	
R305	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R306	ERJ3GEYJ363	M. RESISTOR CH 1/16W 36K	1	
R307, 08	ERJ3GEYJ153	M. RESISTOR CH 1/16W 15K	2	
R309	ERJ3RBD153	M. RESISTOR CH 1/16W 15K	1	
R312	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R313, 14	ERJ3GEYJ105	M. RESISTOR CH 1/16W 1M	2	
R315, 16	ERJ3GEYJ563	M. RESISTOR CH 1/16W 56K	2	
R317	ERJ3GEYG471	M. RESISTOR CH 1/16W 470	1	
R318	ERJ3GEYJ221	M. RESISTOR CH 1/16W 220	1	
R319	ERJ3GEYJ821	M. RESISTOR CH 1/16W 820	1	
R320	ERJ3GEYJ100	M. RESISTOR CH 1/16W 10	1	
R321-23	ERJ3GEYJ220	M. RESISTOR CH 1/16W 22	3	
R324-26	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	3	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R330, 31	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	2	
R339	ERJ3GEYJ221	M. RESISTOR CH 1/16W 220	1	
R340	ERJ3GEYG471	M. RESISTOR CH 1/16W 470	1	
R341	ERJ3GEYJ221	M. RESISTOR CH 1/16W 220	1	
R342	ERJ3GEYG471	M. RESISTOR CH 1/16W 470	1	
R343	ERJ3GEYJ221	M. RESISTOR CH 1/16W 220	1	
R344	ERJ3GEYG471	M. RESISTOR CH 1/16W 470	1	
R345	ERJ3GEYJ221	M. RESISTOR CH 1/16W 220	1	
R346	ERJ3GEYG471	M. RESISTOR CH 1/16W 470	1	
R347	ERJ3GEYJ221	M. RESISTOR CH 1/16W 220	1	
R348	ERJ3GEYG471	M. RESISTOR CH 1/16W 470	1	
R349-58	ERJ3GEYG332	M. RESISTOR CH 1/16W 3.3K	10	
R359	ERJ3RBD912	M. RESISTOR CH 1/16W 9.1K	1	
R360	ERJ3RBD472	M. RESISTOR CH 1/16W 4.7K	1	
R361	ERJ3RBD912	M. RESISTOR CH 1/16W 9.1K	1	
R362	ERJ3RBD472	M. RESISTOR CH 1/16W 4.7K	1	
R363	ERJ3RBD912	M. RESISTOR CH 1/16W 9.1K	1	
R364	ERJ3RBD472	M. RESISTOR CH 1/16W 4.7K	1	
R365	ERJ3RBD912	M. RESISTOR CH 1/16W 9.1K	1	
R366	ERJ3RBD472	M. RESISTOR CH 1/16W 4.7K	1	
R367	ERJ3RBD912	M. RESISTOR CH 1/16W 9.1K	1	
R368	ERJ3RBD472	M. RESISTOR CH 1/16W 4.7K	1	
R369-73	ERJ3GEYJ511	M. RESISTOR CH 1/16W 510	5	
R380	ERJ3GEYJ100	M. RESISTOR CH 1/16W 10	1	
R381	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R382	ERJ3GEYJ100	M. RESISTOR CH 1/16W 10	1	
R383	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R384	ERJ3GEYJ100	M. RESISTOR CH 1/16W 10	1	
R385	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R386	ERJ3GEYJ100	M. RESISTOR CH 1/16W 10	1	
R387	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R388	ERJ3GEYJ100	M. RESISTOR CH 1/16W 10	1	
R389	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R390	ERJ3GEYJ100	M. RESISTOR CH 1/16W 10	1	
R391	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R392-03	ERJ3GEYG332	M. RESISTOR CH 1/16W 3.3K	12	
R404-09	ERJ3RBD122	M. RESISTOR CH 1/16W 1.2K	6	
R410-15	ERJ3RBD151	M. RESISTOR CH 1/16W 150	6	
R416	ERJ3RBD122	M. RESISTOR CH 1/16W 1.2K	1	
R417	ERJ3RBD152	M. RESISTOR CH 1/16W 1.5K	1	
R418	ERJ3RBD122	M. RESISTOR CH 1/16W 1.2K	1	
R419	ERJ3RBD152	M. RESISTOR CH 1/16W 1.5K	1	
R420	ERJ3RBD122	M. RESISTOR CH 1/16W 1.2K	1	
R421	ERJ3RBD152	M. RESISTOR CH 1/16W 1.5K	1	
R422-24	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	3	
R431-33	ERJ3GEYG152	M. RESISTOR CH 1/16W 1.5K	3	
R439	ERJ3GEYJ100	M. RESISTOR CH 1/16W 10	1	
R440	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R441	ERJ3GEYJ100	M. RESISTOR CH 1/16W 10	1	
R442	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R443	ERJ3GEYJ100	M. RESISTOR CH 1/16W 10	1	
R444	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R445	ERJ3GEYJ100	M. RESISTOR CH 1/16W 10	1	
R446	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R448-51	ERJ3GEYG332	M. RESISTOR CH 1/16W 3.3K	4	
R453-56	ERJ3GEYG332	M. RESISTOR CH 1/16W 3.3K	4	
R459-62	ERJ3RBD122	M. RESISTOR CH 1/16W 1.2K	4	
R463-66	ERJ3RBD151	M. RESISTOR CH 1/16W 150	4	
R467	ERJ3RBD122	M. RESISTOR CH 1/16W 1.2K	1	
R468	ERJ3RBD152	M. RESISTOR CH 1/16W 1.5K	1	
R469	ERJ3RBD122	M. RESISTOR CH 1/16W 1.2K	1	
R470	ERJ3RBD152	M. RESISTOR CH 1/16W 1.5K	1	
R471, 72	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	2	
R477, 78	ERJ3GEYG152	M. RESISTOR CH 1/16W 1.5K	2	
R489-91	ERJ3GEYG472	M. RESISTOR CH 1/16W 4.7K	3	
R498-00	ERJ3GEYJ333	M. RESISTOR CH 1/16W 33K	3	
R501-03	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	3	
R504-06	ERJ3GEYG472	M. RESISTOR CH 1/16W 4.7K	3	
R507-09	ERJ3GEYJ512	M. RESISTOR CH 1/16W 5.1K	3	
R513-15	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	3	
R516	ERJ3RBD822	M. RESISTOR CH 1/16W 8.2K	1	
R517	ERJ3RBD512	M. RESISTOR CH 1/16W 5.1K	1	
R518	ERJ3RBD222	M. RESISTOR CH 1/16W 2.2K	1	
R519	ERJ3GEYJ333	M. RESISTOR CH 1/16W 33K	1	
R520	ERJ3GEYJ153	M. RESISTOR CH 1/16W 15K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R521	ERJ3GEYJ302	M. RESISTOR CH 1/16W 3K	1	
R522	ERJ3RBD203	M. RESISTOR CH 1/16W 20K	1	
R523	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R524	ERJ3RBD303	M. RESISTOR CH 1/16W 30K	1	
R525	ERJ3GEYG152	M. RESISTOR CH 1/16W 1.5K	1	
R526-30	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	5	
R531	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R532-36	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	4	
R538	ERJ3GEYJ100	M. RESISTOR CH 1/16W 10	1	
R540	ERJ3GEYJ432	M. RESISTOR CH 1/16W 4.3K	1	
R541	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R543, 44	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	2	
R545, 46	ERJ3GEYG472	M. RESISTOR CH 1/16W 4.7K	2	
R547	ERJ3GEYJ512	M. RESISTOR CH 1/16W 5.1K	1	
R548	ERJ3GEYG472	M. RESISTOR CH 1/16W 4.7K	1	
R549, 50	ERJ3GEYJ100	M. RESISTOR CH 1/16W 10	2	
R551, 52	ERJ3GEYJ512	M. RESISTOR CH 1/16W 5.1K	2	
R553-60	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	8	
R563	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R564	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	1	
R565	ERJ3RBD153	M. RESISTOR CH 1/16W 15K	1	
R566	ERJ3RBD302	M. RESISTOR CH 1/16W 3K	1	
R567	ERJ3RBD333	M. RESISTOR CH 1/16W 33K	1	
R570	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R571	ERJ3GEYJ432	M. RESISTOR CH 1/16W 4.3K	1	
R572	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R573	ERJ3GEYJ432	M. RESISTOR CH 1/16W 4.3K	1	
R574	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R575	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R576, 77	ERJ3GEYG472	M. RESISTOR CH 1/16W 4.7K	2	
R578, 79	ERJ3GEYJ100	M. RESISTOR CH 1/16W 10	2	
R583, 84	ERJ3GEYJ220	M. RESISTOR CH 1/16W 22	2	
R585, 86	ERJ3GEYJ331	M. RESISTOR CH 1/16W 330	2	
R587	ERJ3GEYJ105	M. RESISTOR CH 1/16W 1M	1	
R588	ERJ3GEYJ564	M. RESISTOR CH 1/16W 560K	1	
R589	ERJ3GEYJ105	M. RESISTOR CH 1/16W 1M	1	
R590	ERJ3GEYJ564	M. RESISTOR CH 1/16W 560K	1	
R594, 95	ERJ3GEYJ564	M. RESISTOR CH 1/16W 560K	2	
R597	ERJ3RBD391	M. RESISTOR CH 1/16W 390	1	
R598	ERJ3GEYJ221	M. RESISTOR CH 1/16W 220	1	
R599	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	1	
R600	ERJ3GEYJ435	M. RESISTOR CH 1/16W 4.3M	1	
R601	ERJ3RBD101	M. RESISTOR CH 1/16W 100	1	
R602	ERJ3RBD511	M. RESISTOR CH 1/16W 510	1	
R603-05	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	3	
R606	ERJ3GEYG472	M. RESISTOR CH 1/16W 4.7K	1	
R608, 09	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	2	
R610	ERJ3GEYG152	M. RESISTOR CH 1/16W 1.5K	1	
R611	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R612	ERJ3GEYJ220	M. RESISTOR CH 1/16W 22	1	
R613	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R614	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R615	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R616	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	1	
R617	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R618	ERJ3RBD821	M. RESISTOR CH 1/16W 820	1	
R619	ERJ3RBD822	M. RESISTOR CH 1/16W 8.2K	1	
R620	ERJ3RBD123	M. RESISTOR CH 1/16W 12K	1	
R621, 22	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	2	
R623	ERJ3RED220	M. RESISTOR CH 1/16W 22	1	
R624	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R625	ERJ3RBD101	M. RESISTOR CH 1/16W 100	1	
R626	ERJ3RED220	M. RESISTOR CH 1/16W 22	1	
R627	ERJ3RBD102	M. RESISTOR CH 1/16W 1K	1	
R628	ERJ3RBD182	M. RESISTOR CH 1/16W 1.8K	1	
R629, 30	ERJ3RBD332	M. RESISTOR CH 1/16W 3.3K	2	
R631-34	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	4	
R635	ERJ3GEYJ750	M. RESISTOR CH 1/16W 75	1	
R636-39	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	4	
R640	ERJ3GEYJ750	M. RESISTOR CH 1/16W 75	1	
R646	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R647, 48	ERJ3GEYG472	M. RESISTOR CH 1/16W 4.7K	2	
R649-53	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	5	
R654-68	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	15	
R671-76	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	6	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R677	ERJ3RBD153	M. RESISTOR CH 1/16W 15K	1	
R678-81	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	4	
R683	D4B332500001	THERMISTOR	1	
R684-86	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	3	
R688	ERJ3GEYJ100	M. RESISTOR CH 1/16W 10	1	
R689-91	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	3	
R692	ERJ3RBD332	M. RESISTOR CH 1/16W 3.3K	1	
R693-00	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	8	
R701	ERJ3RBD822	M. RESISTOR CH 1/16W 8.2K	1	
R702-10	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	9	
R712-19	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	8	
R721-42	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	22	
R743	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R744	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R747-49	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	3	
R750, 51	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	2	
R752, 53	ERJ3GEYJ270	M. RESISTOR CH 1/16W 27	2	
R754	ERJ3GEYJ105	M. RESISTOR CH 1/16W 1M	1	
R755	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R756	ERJ3GEYJ122	M. RESISTOR CH 1/16W 1.2K	1	
R757	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R759-68	ERJ3GEYJ621	M. RESISTOR CH 1/16W 620	10	
R769-78	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	10	
R779-13	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	35	
R814-18	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	5	
R819-28	ERJ3GEYJ621	M. RESISTOR CH 1/16W 620	10	
R829-44	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	16	
R845, 46	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	2	
R847	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	1	
R848, 49	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	2	
R850	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	1	
R851, 52	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	2	
R853	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	1	
R854, 55	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	2	
R856	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	1	
R857, 58	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	2	
R859-86	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	28	
R887	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R888	ERJ3RBD202	M. RESISTOR CH 1/16W 2K	1	
R889	ERJ3RBD203	M. RESISTOR CH 1/16W 20K	1	
R890	ERJ3RBD103	M. RESISTOR CH 1/16W 10K	1	
R891, 92	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	2	
R893	ERJ3GEYJ223	M. RESISTOR CH 1/16W 22K	1	
R894	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R895	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	1	
R896	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R897	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R898	ERJ3GEYG472	M. RESISTOR CH 1/16W 4.7K	1	
R899	ERJ3GEYJ151	M. RESISTOR CH 1/16W 150	1	
R900-04	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	5	
R905, 06	ERJ3RBD302	M. RESISTOR CH 1/16W 3K	2	
R907	ERJ3RBD103	M. RESISTOR CH 1/16W 10K	1	
R908, 09	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	2	
R910	ERJ3GEYJ202	M. RESISTOR CH 1/16W 2K	1	
R911	ERJ3GEYJ681	M. RESISTOR CH 1/16W 680	1	
R912	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R913	ERJ3GEYJ393	M. RESISTOR CH 1/16W 39K	1	
R914	ERJ3GEYJ681	M. RESISTOR CH 1/16W 680	1	
R915	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R916	ERJ3GEYJ681	M. RESISTOR CH 1/16W 680	1	
R917-20	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	4	
R921	ERJ3GEYG472	M. RESISTOR CH 1/16W 4.7K	1	
R922	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	1	
R923, 24	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	2	
R925	ERJ3GEYJ432	M. RESISTOR CH 1/16W 4.3K	1	
R927	ERJ3GEYJ432	M. RESISTOR CH 1/16W 4.3K	1	
R929	ERJ3GEYG472	M. RESISTOR CH 1/16W 4.7K	1	
R931	ERJ3GEYG472	M. RESISTOR CH 1/16W 4.7K	1	
R935	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R936	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R937	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R938	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R939, 40	ERJ3GEYJ303	M. RESISTOR CH 1/16W 30K	2	
R941, 42	ERJ3GEYJ203	M. RESISTOR CH 1/16W 20K	2	
R943	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R944	ERJ3GEYJ750	M. RESISTOR CH 1/16W 75	1	
R945	ERJ3GEYG332	M. RESISTOR CH 1/16W 3.3K	1	
R946	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R947	ERJ3GEYG472	M. RESISTOR CH 1/16W 4.7K	1	
R948	ERJ3GEYJ750	M. RESISTOR CH 1/16W 75	1	
R949	ERJ3GEYG472	M. RESISTOR CH 1/16W 4.7K	1	
R950	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	1	
R951, 52	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	2	
R953	ERJ3GEYJ432	M. RESISTOR CH 1/16W 4.3K	1	
R955	ERJ3GEYJ432	M. RESISTOR CH 1/16W 4.3K	1	
R957	ERJ3GEYG472	M. RESISTOR CH 1/16W 4.7K	1	
R959	ERJ3GEYG472	M. RESISTOR CH 1/16W 4.7K	1	
R963	ERJ3RBD101	M. RESISTOR CH 1/16W 100	1	
R964	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R965	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R966	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R967, 68	ERJ3GEYJ303	M. RESISTOR CH 1/16W 30K	2	
R969, 70	ERJ3GEYJ203	M. RESISTOR CH 1/16W 20K	2	
R971	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R972	ERJ3GEYJ750	M. RESISTOR CH 1/16W 75	1	
R973	ERJ3GEYG332	M. RESISTOR CH 1/16W 3.3K	1	
R974	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R975	ERJ3GEYJ122	M. RESISTOR CH 1/16W 1.2K	1	
R976	ERJ3GEYJ621	M. RESISTOR CH 1/16W 620	1	
R977	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R978	ERJ3GEYJ122	M. RESISTOR CH 1/16W 1.2K	1	
R979	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R980	ERJ3GEYJ621	M. RESISTOR CH 1/16W 620	1	
R981-83	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	3	
R984	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	1	
R985	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R986	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	1	
R987-92	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	6	
R993	ERJ3GEYJ100	M. RESISTOR CH 1/16W 10	1	
R994	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	1	
R995	ERJ3GEYJ750	M. RESISTOR CH 1/16W 75	1	
R996	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R997, 98	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	2	
R1000	ERJ3GEYJ750	M. RESISTOR CH 1/16W 75	1	
R1001	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R1002	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R1003	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R1004	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R1005	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R1006	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R1007	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R1008	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R1009-12	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	4	
R1013-16	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	4	
R1017-20	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	4	
R1021	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R1022	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R1023	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	1	
R1024	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	1	
R1025	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	1	
R1026	ERJ3RBD202	M. RESISTOR CH 1/16W 2K	1	
R1027	ERJ3RBD223	M. RESISTOR CH 1/16W 22K	1	
R1028	ERJ3RBD303	M. RESISTOR CH 1/16W 30K	1	
R1029	ERJ3GEYJ272	M. RESISTOR CH 1/16W 2.7K	1	
R1030	ERJ3GEYJ681	M. RESISTOR CH 1/16W 68K	1	
R1031	ERJ3GEYJ302	M. RESISTOR CH 1/16W 3K	1	
R1032	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R1033	ERJ3GEYJ393	M. RESISTOR CH 1/16W 39K	1	
R1034	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R1035	ERJ3GEYJ393	M. RESISTOR CH 1/16W 39K	1	
R1036	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R1037	ERJ3GEYJ221	M. RESISTOR CH 1/16W 220	1	
R1038	ERJ3GEYJ393	M. RESISTOR CH 1/16W 39K	1	
R1039	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R1040	ERJ3GEYJ393	M. RESISTOR CH 1/16W 39K	1	
R1041	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R1042	ERJ3GEYJ221	M. RESISTOR CH 1/16W 220	1	
R1043, 44	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	2	
R1045, 46	ERJ3GEYJ513	M. RESISTOR CH 1/16W 51K	2	
R1047	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R1048	ERJ3GEYJ510	M. RESISTOR CH 1/16W 51	1	ERJ3GEYJ510V
R1049	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	1	
R1050	ERJ3GEYJ510	M. RESISTOR CH 1/16W 51	1	
R1051	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	1	
R1052	ERJ3GEYJ510	M. RESISTOR CH 1/16W 51	1	
R1053	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	1	
R1054	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R1055	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	1	
R1056	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R1057-59	ERJ3GEYG332	M. RESISTOR CH 1/16W 3.3K	3	
R1060	ERJ3GEYJ203	M. RESISTOR CH 1/16W 20K	1	
R1061	ERJ3RBD101	M. RESISTOR CH 1/16W 100	1	
R1062	ERJ3RBD221	M. RESISTOR CH 1/16W 220	1	
R1063	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R1064	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R1066	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R1067-69	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	3	
R1070	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R1072-74	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	3	
R1075-77	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	3	
R1078	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R1080	ERJ3GEYJ331	M. RESISTOR CH 1/16W 330	1	
R1081	ERJ3RBD301	M. RESISTOR CH 1/16W 300	1	
R1082	ERJ3RBD102	M. RESISTOR CH 1/16W 1K	1	
R1084	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R1091-94	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	4	
R1095	ERJ3GEYJ333	M. RESISTOR CH 1/16W 33K	1	
R1096	ERJ3GEYG332	M. RESISTOR CH 1/16W 3.3K	1	
R1097, 98	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	2	
R1099	ERJ3GEYJ333	M. RESISTOR CH 1/16W 33K	1	
R1100	ERJ3GEYG332	M. RESISTOR CH 1/16W 3.3K	1	
R1101-04	ERJ3RBD151	M. RESISTOR CH 1/16W 150	4	
R1105	ERJ3RBD822	M. RESISTOR CH 1/16W 8.2K	1	
R1106	ERJ3GEYJ683	M. RESISTOR CH 1/16W 68K	1	
R1107-12	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	6	
SW1	KOD444A00009	SWITCH	1	
TP1-P6	DOYDR0000011	M. RESISTOR CH 1/8W 0	6	
TP8-12	DOYDR0000011	M. RESISTOR CH 1/8W 0	5	
TP14-16	DOYDR0000011	M. RESISTOR CH 1/8W 0	3	
TP23, 24	DOYDR0000011	M. RESISTOR CH 1/8W 0	2	
TP28-32	DOYDR0000011	M. RESISTOR CH 1/8W 0	5	
VR1-R3	VRV0113B501	V. RESISTOR	500	3
VR4	D3EC41030004	V. RESISTOR	10K	1
VR5-R9	VRV0113B101	V. RESISTOR	100	5
X1	HOJ143500041	CRYSTAL OSCILLATOR		1
X2	HOJ177500019	CRYSTAL OSCILLATOR		1
X3	HOJ270500053	CRYSTAL OSCILLATOR		1
X4	HOJ143500041	CRYSTAL OSCILLATOR		1
X5	HOJ177500019	CRYSTAL OSCILLATOR		1
X6	HOJ120500005	CRYSTAL OSCILLATOR		1
X7	HOJ240500018	CRYSTAL OSCILLATOR		1
■ E3	VEP20A32A	PANEL P. C. BOARD	1	(RTL)
C1, C2	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	2	
C3	ECST1AC476Z	T. CAPACITOR CH 10V 47U	1	
C4	ECST1VY474Z	T. CAPACITOR CH 35V 0.47U	1	
C5	ECST1AY106Z	T. CAPACITOR CH 10V 10U	1	
C6	ECST1VY474Z	T. CAPACITOR CH 35V 0.47U	1	
C7	ECST1AC476Z	T. CAPACITOR CH 10V 47U	1	
C8, C9	ECST1VY474Z	T. CAPACITOR CH 35V 0.47U	2	
C10, 11	ECST1AY106Z	T. CAPACITOR CH 10V 10U	2	
C12	ECST1VY474Z	T. CAPACITOR CH 35V 0.47U	1	ECST1VY474R
C13	ECST1AC476Z	T. CAPACITOR CH 10V 47U	1	
C15	F3F1C1060002	T. CAPACITOR CH 16V 10U	1	
C16	F1H1E104A016	C. CAPACITOR CH 25V 0.1U	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
D1	LN38GP	DIODE	1	
D2, D3	LN317GPH	DIODE	2	
D4-30	MA142K	DIODE	27	
D31	LN422YP	DIODE	1	
IC1, C2	COJBAN000160	IC	2	
IC3	NJM431U	IC	1	CODBEZC00003
J1-J7	VJR1095	LUG TERMINAL	7	
P1	VJP1243T	CONNECTOR (MALE) 3P	1	K1KA03B00012
P2	K1MP80B00001	CONNECTOR	1	
P3	K1KA04B00063	CONNECTOR (MALE)	1	
Q1	2SB1073	TRANSISTOR	1	
Q2-Q7	2SB1218ALL	TRANSISTOR	6	
Q8	2SB1073	TRANSISTOR	1	
Q9-32	2SB1218ALL	TRANSISTOR	24	
Q33-36	2SD1819A-R	TRANSISTOR	4	
Q38	2SB1218ALL	TRANSISTOR	1	
R1	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R2	ERJ3GEYJ470	M. RESISTOR CH 1/16W 47	1	
R4, R5	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	2	
R6, R7	ERJ3GEYJ220	M. RESISTOR CH 1/16W 22	2	
R8	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R9, 10	ERJ3GEYJ220	M. RESISTOR CH 1/16W 22	2	
R11	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R12, 13	ERJ3GEYJ220	M. RESISTOR CH 1/16W 22	2	
R14	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R15, 16	ERJ3GEYJ220	M. RESISTOR CH 1/16W 22	2	
R17	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R18, 19	ERJ3GEYJ220	M. RESISTOR CH 1/16W 22	2	
R20	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R21, 22	ERJ3GEYJ220	M. RESISTOR CH 1/16W 22	2	
R23	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R24	ERJ3GEYJ470	M. RESISTOR CH 1/16W 47	1	
R26, 27	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	2	
R28, 29	ERJ3GEYJ220	M. RESISTOR CH 1/16W 22	2	
R30	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R31, 32	ERJ3GEYJ220	M. RESISTOR CH 1/16W 22	2	
R33	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R34, 35	ERJ3GEYJ220	M. RESISTOR CH 1/16W 22	2	
R36	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R37, 38	ERJ3GEYJ220	M. RESISTOR CH 1/16W 22	2	
R39	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R40, 41	ERJ3GEYJ220	M. RESISTOR CH 1/16W 22	2	
R42	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R43, 44	ERJ3GEYJ220	M. RESISTOR CH 1/16W 22	2	
R45	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R46, 47	ERJ3GEYJ220	M. RESISTOR CH 1/16W 22	2	
R48	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R49, 50	ERJ3GEYJ220	M. RESISTOR CH 1/16W 22	2	
R51	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R52, 53	ERJ3GEYJ220	M. RESISTOR CH 1/16W 22	2	
R54	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R55, 56	ERJ3GEYJ220	M. RESISTOR CH 1/16W 22	2	
R57	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R58, 59	ERJ3GEYJ220	M. RESISTOR CH 1/16W 22	2	
R60	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R61, 62	ERJ3GEYJ220	M. RESISTOR CH 1/16W 22	2	
R63	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R64, 65	ERJ3GEYJ220	M. RESISTOR CH 1/16W 22	2	
R66	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R67, 68	ERJ3GEYJ220	M. RESISTOR CH 1/16W 22	2	
R69	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R70, 71	ERJ3GEYJ220	M. RESISTOR CH 1/16W 22	2	
R72	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R73, 74	ERJ3GEYJ220	M. RESISTOR CH 1/16W 22	2	
R75	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R76, 77	ERJ3GEYJ220	M. RESISTOR CH 1/16W 22	2	
R78	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R79, 80	ERJ3GEYJ220	M. RESISTOR CH 1/16W 22	2	
R81	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R82, 83	ERJ3GEYJ220	M. RESISTOR CH 1/16W 22	2	
R84	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R85, 86	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	2	
R87	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R88, 89	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	2	
R90, 91	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	2	
R92	ERJ3GEYJ911	M. RESISTOR CH 1/16W 910	1	
R94	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R95	ERJ3GEYJ392	M. RESISTOR CH 1/16W 3.9K	1	
R96-03	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	8	
R104, 05	ERJ3GEYJ152	M. RESISTOR CH 1/16W 1.5K	2	
R106	ERJ3GEYJ153	M. RESISTOR CH 1/16W 15K	1	
R107	ERJ3GEYJ272	M. RESISTOR CH 1/16W 2.7K	1	
R108, 09	ERJ3GEYJ152	M. RESISTOR CH 1/16W 1.5K	2	
R112-19	ERJ3GEYJ511	M. RESISTOR CH 1/16W 510	8	
R120	ERJ3GEYJ681	M. RESISTOR CH 1/16W 680	1	
R121	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R122	ERJ3GEYJ681	M. RESISTOR CH 1/16W 680	1	
R123	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R124, 25	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	2	
R126	ERJ3GEYJ153	M. RESISTOR CH 1/16W 15K	1	
R127	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
R128	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R129	ERJ3GEYJ153	M. RESISTOR CH 1/16W 15K	1	
R130	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
R131	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R133	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
R134	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R136	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
R137	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R139	ERJ3GEYJ682	M. RESISTOR CH 1/16W 6.8K	1	
R140-43	ERJ3GEYJ513	M. RESISTOR CH 1/16W 51K	4	
R144	ERJ3GEYJ681	M. RESISTOR CH 1/16W 680	1	
R145	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R146	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
R148	ERJ3GEYJ0R00	M. RESISTOR CH 1/16W 0	1	
R149	ERJ3GEYJ331	M. RESISTOR CH 1/16W 330	1	
R150	ERJ3RBD301	M. RESISTOR CH 1/16W 300	1	
R151	ERJ3RBD102	M. RESISTOR CH 1/16W 1K	1	
SW1-25	KOF111A00120	SWITCH	25	
SW26, 27	VSP0599	SWITCH	2	KOF111A00115
SW28	KOD122A00067	SWITCH	1	
SW29	KOD123A00019	SWITCH	1	
SW30	SSSF023P9N	SWITCH	1	KOD123A00019
SW31	KOD122A00033	SWITCH	1	
SW32	SSSF022P9N	SWITCH	1	KOD122A00033
VR1	D2BDA44B0004	V. RESISTOR	40K	1
VR2	RK9K11310K	V. RESISTOR	40K	1
VR3-R6	D2AAA53B0001	V. RESISTOR	5K	4
VR7	RK9K11310K	V. RESISTOR	40K	1
VR8	D2AAA13B0001	V. RESISTOR	1K	1
■ E4	VEP23592A	BNC P. C. BOARD	1	(RTL)
J3, J4	K1QBB5AP0001	CONNECTOR	2	
J5	K1QBB5AP0002	CONNECTOR	1	
L1-10	VLP0197	COIL	10	JOJCC0000049
P11	VJP3440B020	CONNECTOR (MALE)	1	K1KA20B00027
R48-52	ERJ3GEYJ750	M. RESISTOR CH 1/16W 75	5	
R53-57	ERJ3GEYJ0R00	M. RESISTOR CH 1/16W 0	5	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
■ E5	VEP23594A	S CONT P. C. BOARD	1	(RTL)
FL1	JOJHA0000001	FILTER	1	
J1	K2EZ2B000029	DC POWER JACK	1	
J2	K2HC103B0031	JACK	1	
P1	K1FA104B0011	CONNECTOR (MALE)	1	
P2-P7	K1CB104B0025	CONNECTOR (FEMALE)	6	
P8	VJP2824B002	CONNECTOR (MALE)	1	K1KA02B00007
P9	VJP3440A018	CONNECTOR (MALE)	1	K1KA18A00016
P10	VJP3440A024	CONNECTOR (MALE)	1	K1KA24A00022
R1-R4	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	4	
R17, 18	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	2	
R19, 20	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	2	
R25, 26	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	2	
R27, 28	ERJ3GEYJ750	M. RESISTOR CH 1/16W 75	2	
R29, 30	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	2	
R31, 32	ERJ3GEYJ750	M. RESISTOR CH 1/16W 75	2	
R33, 34	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	2	
R35, 36	ERJ3GEYJ750	M. RESISTOR CH 1/16W 75	2	
R37, 38	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	2	
R39, 40	ERJ3GEYJ750	M. RESISTOR CH 1/16W 75	2	
R41, 42	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	2	
R43, 44	ERJ3GEYJ750	M. RESISTOR CH 1/16W 75	2	
R45-47	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	3	
SW1	KOD144A00005	SWITCH	1	